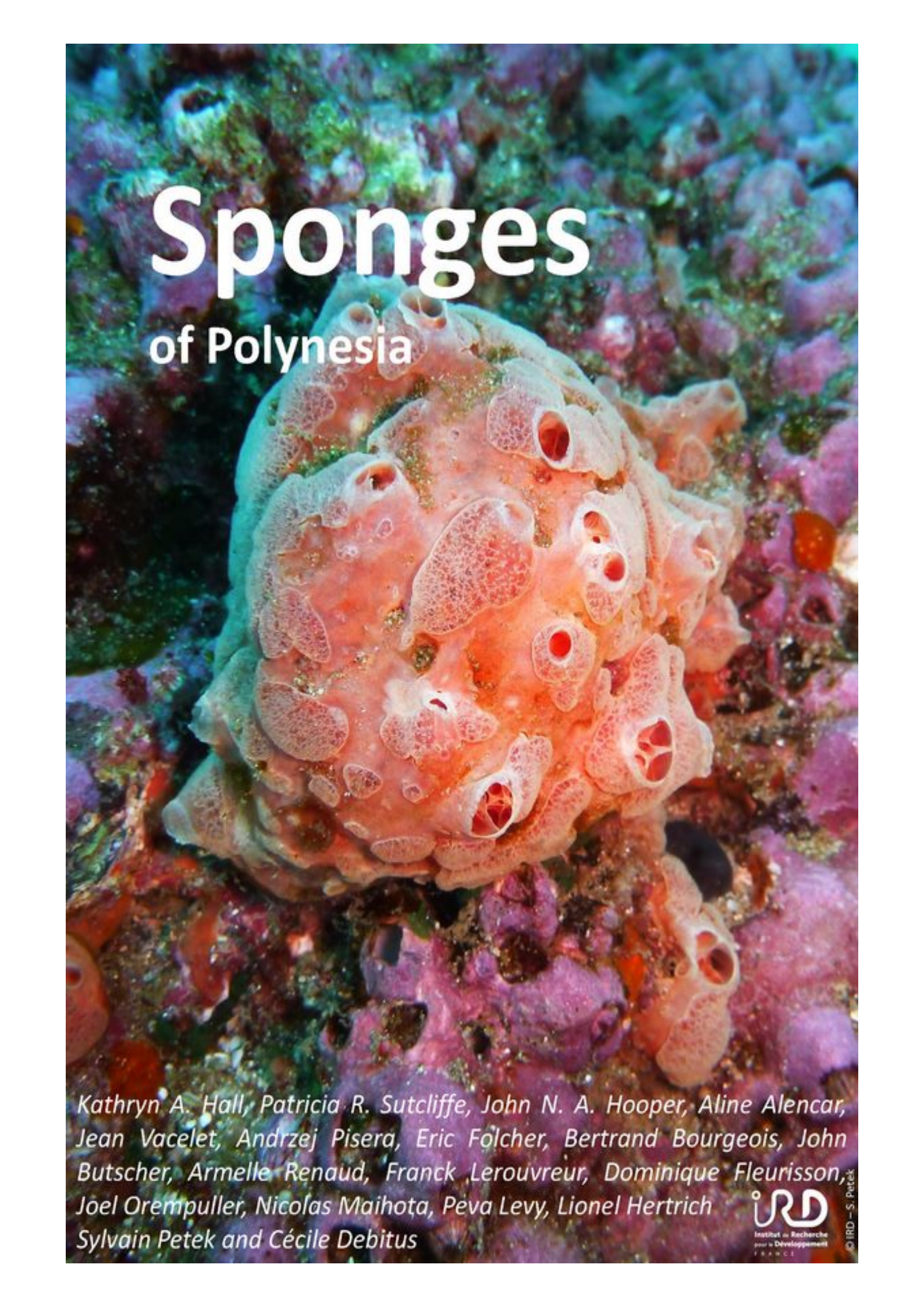




Sponges of Polynesia

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Introduction

French Polynesia is a large territory consisting of 118 islands forming five archipelagos with a land mass of only 3519 km² scattered over 5.5 million km² of ocean (7-28° South, 134-155° West): Society (Leeward and Windward), Tuamotu, Australes, Marquesas and Gambier Islands Archipelagos. The area is reportedly characterized by poor biodiversity, but with high levels of endemism for some groups, either terrestrial or marine. Some marine taxa have been surveyed extensively, such as molluscs (over 400 species), corals (51 genera, 168 species), algae and fishes, whereas our knowledge of others in this region, like sponges, is virtually negligible.

Surveys of French Polynesian sponges were undertaken over many years to fill the gap in our knowledge of this group as a cornerstone for the conservation of marine biodiversity, and also to investigate potential new economical resources in French Polynesia. Like all Pacific Island countries, preservation of the environment often depends closely on placing value on the natural resources, including marine natural products as potential sources of new pharmaceuticals.

Facing a lack of literature on Porifera in French Polynesia, and the sparse knowledge of this group by the Polynesian people (despite their great interest in marine life in general), sponges only have one vernacular name, “P?hune”, for species perforating the pearl oyster shell. The question remained as to whether sponges in French Polynesia were scarce, scattered or difficult to sample. After many marine surveys in each archipelago, the conclusion is they are all that the above. We undertook about 900 dives, down to 60 m depth, to record as exhaustively as possible those marine organisms from a variety of habitats: from the lagoons and their coral patches, inner fringing and outer reefs, passes, rocky slopes, submerged lava tubes, bays and capes, on different windward and seaward exposures. Tahiti wins the first place over all other French Polynesian islands for its sponge diversity, thanks to her most diversified habitats and richest “island effect”.

Specimens were assigned to an OTU (morphospecies or operational taxonomic unit) and its characteristics documented in an online summary description (or ‘mudmap’, available at www.spongemaps.org). This rigorous process ensured that every specimen acquired was assigned to an OTU (irrespective of whether it was a named taxon recognised within the Linnaean classification system), to enable unequivocal comparison across all collections as ‘same’ or ‘different’. Currently, these morphological hypotheses are being tested and supported by independent molecular datasets for a significant number of sponge specimens vouchered in QM collections (see the Sponge Barcoding Project, www.spongebarcoding.org). Some widespread sponges are very abundant, which allowed connecting French Polynesia to some other southwestern populations, but 30% of samples were found on only one island, 10% only collected once (‘singletons’), and nearly half of all species (46%) found nowhere else in the Pacific Ocean to the best of our knowledge. This corroborates the high level of endemism described for some other marine groups (e.g. 42% for tunicates (Tuamotu), 8.3% for fishes) ... many thinly encrusting species of marine invertebrates still remain on the rocks!

Finally, this website is linked to the Queensland Museum’s database and therefore to [WoRMS](http://www.worms.org), [GBIF](http://www.gbif.org), and automatically updated once a month, therefore ensuring sustainability of this work. The monthly updated E-book can be downloaded and taken into the field. We hope this work will fulfill the curiosity of people interested in their marine environment, eco-divers who are a great part of tourists in French Polynesia, and scientists alike.

‘Ōmuara’a

E fenua ‘ā’ano o Pōrīnetia farāni, i te rahira’a e 118 motu i ha’amauhia i ni’a i nā ta’amotu e 5 i te ‘ā’anora’a e 3 519 km² fenua marō i purara i ni’a hau atu i te 5,5 mirioni km² moana paruparu (7-28° ‘Apato’a, 134-155° To’o’a o te rā). O te mau motu Tōtaiete (motu ni’a mata’i e te mau motu raro mata’i), Tuamotu, Tuha’apae, ‘Enāta e Ma’areva mā. E ‘ihiora veve tō taua vāhi ra, are’a vetahi mau pupu ho’aho’a mea ora o te fenua e aore ra o te moana, ua ‘aere noa ia. Ua ravehia te mau tuatāpapara’a i ni’a i te vetahi mau pupu mea ora o te moana, mai te mau ‘ina’i ‘apu (hau atu i te 400 ho’aho’a ‘ānimara), te mau to’a (51 huru, 168 hōho’a), te mau remu e te mau i’a, are’a te vetahi ‘ē mai te rimu atiuaea, aita roa ia i tāu’ahia.

Ua tai’ohia te mau rimu atiuaea o Pōrīnetia farāni e rave rahi mau matahiti, nō te fa’arava’i i te ‘ere o te ‘ite i ni’a i teie ho’aho’a, o tei riro ho’i ei hō’ē o te mau pou o te ‘atu’atura’a o te heipuni o te moana, i te hō’ē pae, e nō te mā’imi i te mau puna ‘imira’a faufa’a ‘āpī e vai ra i Pōrīnetia farāni. Mai te mau fenua ato’a o te moana Patitifa, tei te huru o te fa’arirora’a i te mau faufa’a puna o te fenua e roa’a ai i te pāruru i te arutaimāreva, e tae atu i te mau hotu o te moana, te mau puna faufa’a rahi e roa’a mai ai te mau rā’au ‘āpī.

I te mea aita e pāpa’i a te mau ‘eivana’a i ni’a i te mau rimu atiuaea o Pōrīnetia farāni, e te rava’i ‘ore o te ‘ite o te mau ta’ata i Pōrīnetia i ni’a i taua pupu mea ora ra, noa atu tō rātou ‘ana’anatae rahi i te parau o te ora i raro i te moana (o te mau rīmu ‘ā’aro ana’e i te ‘apu pārau poe tei topahia te i’oa e te mā’ohi, oia te pūhune), tē toe ra rā te ‘itera’a e mea varavara anei te mau rīmu ‘atiuaea i ni’a i taua ta’amotu ra, e aore ra ua parare haere, e aore ra mea fifi ia tai’o haere. I muri mai e rave rahi mau taime mā’imira’a i roto i te mau ta’amotu ato’a, ua tū te mana’o i te parau ē, teie te mau fa’anahora’a

ato'a. E 900 hopura'a i raro i te moana, e tae roa i te hōhonura'a e 65 metera, tei ravehia i roa'a mai ai i te tai'o i teie mau ho'aho'a o te moana i roto i te mau nohora'a rau, ni'a mata'i e aore ra raro mata'i : te mau tairoto e tō rātou mau pu'u to'a, te mau papa to'a piri fenua e te mau a'au, te mau ava, te mau mato tārere, te ana i raro i te moana, te mau 'ō'o'a e te mau 'outu. Tei ia Tahiti te pārahira'a mātāmua i mua i te mau motu ato'a o Pōrīnetia farāni, nō te raura'a o te mau huru nohora'a e fārereihia i reira, e oia ato'a te motu mātāmua roa i 'i i taua mau faufa'a ra.

Ua tu'uhia te tahi nūmera (UTO) tāpa'ora'a ho'aho'a i ni'a i te mea ora tāta'i tahi e ua pāpa'ihia tōna mau fa'anahora'a i roto i te tahi parau fa'ata'ara'a i tu'uhia i ni'a i te tahua rorouira (www.spongemaps.org). Maoti taua fa'anahora'a pāpū i roa'a ai i te hōro'a i te tahi nūmera UTO i te ho'aho'a tāta'i tahi, e ho'aho'a 'itehia anei i roto i te tāpura i'oa a Linée, e aore ra aita, e ravehia atu ai te fa'aura'a ma te fifi 'ore i te mau ho'aho'a o te mau tāpura i'oa 'ē atu e, i te 'āna'i hō'ē ā anei fa'ahonora'a e aore ra aita. A tae mai ra i teie mahana, ua tāmatahia taua mau hi'ora'a i mana'ohia e ua fa'ananeahia e te mau mā'imira'a 'ōruatahi i ravehia i ni'a i te mau ho'aho'a rimu atiuaea e rave rahi o te mau ha'apu'era'a a te Fare Iamanahā « Queensland Museum » i 'Auteraria.

Ua 'aere vetahi mau ho'aho'a rimu atiuaea i Pōrīnetia farāni, roa'a atu ai i te fa'atū'ati i tāna mau rimu atiuaea i te vetahi mau ho'aho'a 'ē atu o te moana Patitifa 'Apato'a-To'o'ā o te rā. Teie rā, ua 'itehia i ni'a i te hō'ē noa motu te rahira'a e 30% o te mau rimu atiuaea i 'ohihia, e 10% o rātou hō'ē noa taime, e te 'āfāra'a o te mau ho'aho'a (46%), aita ia e vai ra i roto i te tahi vāhi 'ē atu i roto i te moana Patitifa, ia au i tā mātou mā'imira'a. Ua tuea noa teie mana'o i te tai'o o te mau ho'aho'a e 'itehia i te hō'ē noa vāhi, i roto i te mau ho'aho'a 'ē atu o te moana (ei hi'ora'a : e 42% nō te mau « ascidies » i te pae Tuamotu ma, e 8,3% nō te mau i'a...). Tē vai ra ā te mau ho'aho'a rimu hu'a e te tāpi'i 'ē atu e au ia mā'imihia i ni'a i te mau to'a ! I te hōpe'a, ua tū'atihia taua tahua rorouira ra i ni'a i te mau 'āna'ira'a niu a te fare Iamanahā Queensland Museum e, oia ho'i i ni'a i te

fa'annahora'a WoRMS e te GBIF, mai te reira e fa'a'āpī tāmauhia te 'āna'ira'a hō'ē taime i te 'āva'e, e vai faufa'a ai taua 'ohipa ra e a tau noa atu. E roa'a teie puta uira, o tē fa'a'āpīhia i te mau 'āva'e ato'a, ia rave mai ē ta'ita'i atu ai i ni'a i te vāhi 'ohipara'a. Tē ti'aturi nei mātou e 'ana'anatae mai te mau ta'ata e ha'apa'o ra i te parau o te arutaimāreva, te mau manihini hopu moana ihoā ra, o rātou ho'i te rahira'a o te mau manihini e tae mai nei i Pōrīnetia farāni nei, e tae atu i te mau 'eivana'a ato'a.

Introduction

La Polynésie française est un immense territoire composé de 118 îles formant 5 archipels, avec seulement 3519 km² de terres émergées dispersées sur plus de 5,5 million km² d'océan (7-28° Sud, 134-155° Ouest). Ce sont les îles de la Société (îles du vent et îles sous le vent), Tuamotu, Australes, Marquises et Gambier. La région est caractérisée par une biodiversité pauvre, mais de forts taux d'endémisme pour certains groupes terrestres ou marins. Quelques groupes marins ont fait l'objet d'études importantes comme les mollusques (plus de 400 espèces), les coraux (51 genres, 168 espèces), les algues et les poissons, alors que d'autres comme les spongiaires ont été quasiment négligés.

L'inventaire des éponges de Polynésie française a été entrepris sur plusieurs années, d'une part pour combler le vide de connaissances sur ce groupe qui est pourtant l'un des fondements de la conservation de l'environnement marin, et d'autre part pour rechercher de nouvelles ressources économiques potentielles en Polynésie française. Comme tous les pays insulaires du Pacifique, la protection de l'environnement dépend étroitement des valeurs attachées aux ressources naturelles, y compris les produits naturels marins, source potentielle de nouveaux médicaments.

Devant quasi néant de littérature scientifique sur les Porifères de Polynésie française, et le peu de connaissances des Polynésiens sur ce groupe malgré leur grand intérêt pour la vie marine en général (seules les éponges perforant les huîtres perlières ont un nom vernaculaire polynésien, "p'hune"), il restait à savoir si les éponges de cet archipel sont rares, dispersées ou difficiles à échantillonner. Après plusieurs campagnes menées sur tous les archipels, la conclusion est qu'elles sont tout cela. Environ 900 plongées jusqu'à 60 m de profondeur ont permis de récolter de façon aussi exhaustive que possible ces organismes marins dans des habitats diversifiés sous différentes expositions, au vent ou sous le vent : des lagons et leur patates de corail, récifs frangeants et barrières, passes, pentes rocheuses, lavatubes immergés, baies et caps. Tahiti gagne la première place de toutes les îles de Polynésie française pour sa diversité en éponges, grâce à la grande diversité des habitats qui y sont rencontrés mais aussi à l'« effet d'île » le plus riche.

Un numéro d'UTO (espèce morphologique ou unité taxonomique opérationnelle) a été attribué à chaque spécimen et ses caractéristiques rassemblées dans une fiche descriptive en ligne (disponible sur le site www.spongemaps.org). Cette méthode rigoureuse permet d'assurer l'attribution à chaque spécimen d'un UTO, que ce soit une espèce identifiée dans la classification Linnéenne ou non, permettant la comparaison sans équivoque des spécimens des différentes collections et de les classer comme identiques ou différents. À l'heure actuelle, ces hypothèses morphologiques ont été testées et renforcées par des ensembles de données moléculaires indépendants pour un nombre important de

spécimens d'éponges des collections du Queensland Museum en Australie (voir le projet « Sponge Barcoding », www.spongebarcoding.org). Quelques éponges de large répartition géographique sont abondantes en Polynésie française, permettant de relier sa faune des spongiaires à d'autres populations du Pacifique Sud-Ouest. Cependant, 30% des échantillons n'ont été trouvés que sur une seule île, 10% seulement une fois, et environ la moitié des espèces (46%) nulle part ailleurs à notre connaissance dans l'océan Pacifique. Ceci est en accord avec le haut taux d'endémisme décrit pour d'autres groupes marins (ex : 42% d'endémisme pour les ascidies (Tuamotu), 8,3% pour les poissons...). Beaucoup d'espèces encroûtantes et fines sont encore à découvrir sur les roches !

Enfin, ce site internet est relié à la base de données du Queensland Museum et donc au [WoRMS](#) (« World Register of Marine Species ») et [GBIF](#) (« Global Biodiversity Information Facility »), et automatiquement mis à jour une fois par mois, assurant ainsi la pérennité de ce travail. Le livre électronique actualisé mensuellement peut être téléchargé et emporté sur le terrain. Nous espérons que ce travail satisfera la curiosité des personnes intéressées par leur environnement, des éco-touristes plongeurs qui représentent une grande partie des touristes en Polynésie française, ainsi que bien sûr les scientifiques.

Order: Agelasida

Family: Astroscleridae

***Astrosclera willeyana* (OTU QM0656)**

Order
Agelasida

Family
Astroscleridae



External characters

spherical or subspherical, stalked or not, <17 cm (d); cave fauna.

Colour

orange-pink in life.

Skeletal Characters

Oscules	minute.
Texture	calcareous, coral-like.
Surface_Ornamentation	asterose canals (astrorhizae).
Ectosomal_Skeleton	no observations.
Choanosomal_Skeleton	calcareous reticulate basal skeleton, verticillate acanthostyles embedded in walls.
Megascleres	acanthostyles: verticillate.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

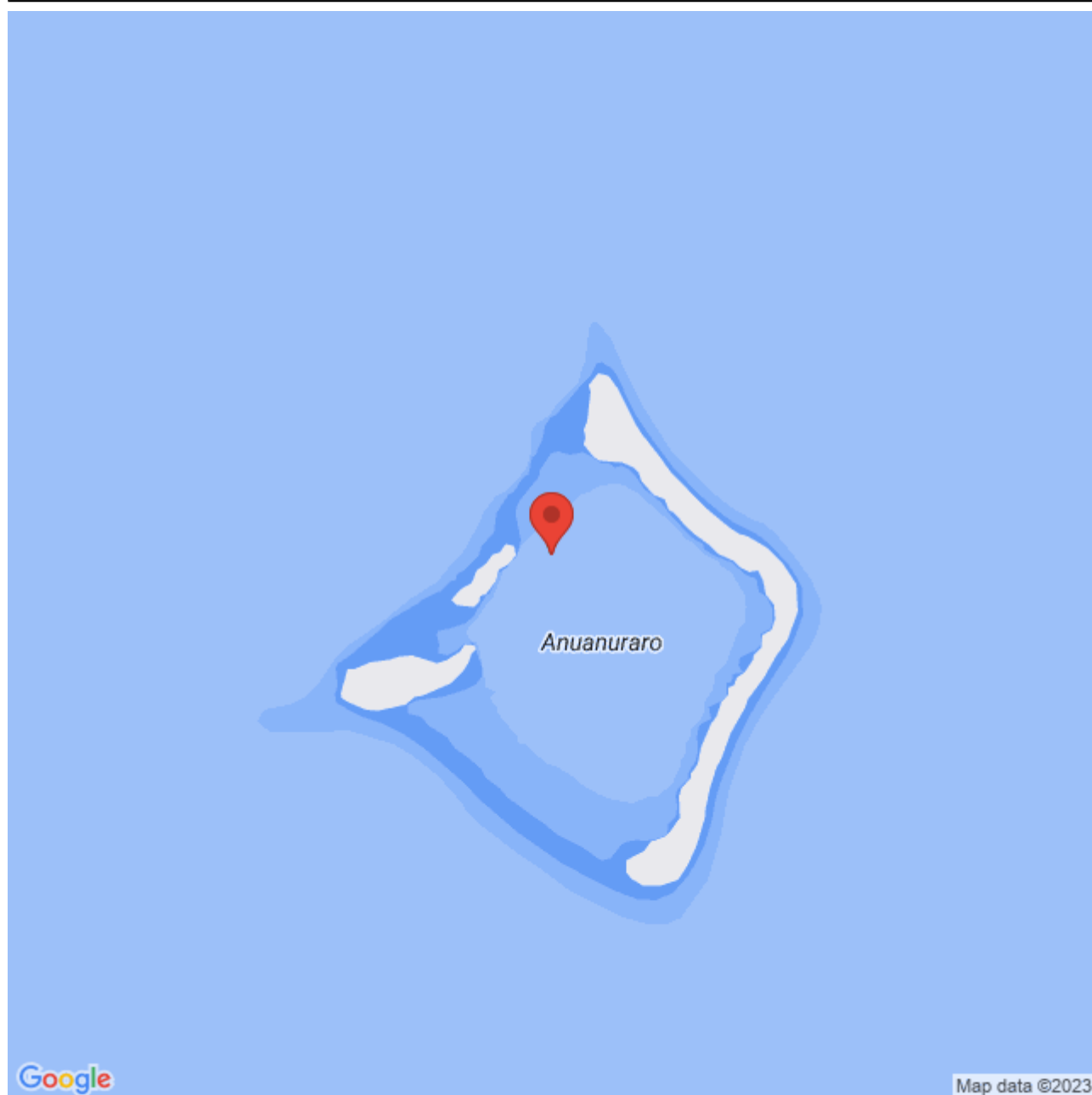
Ecology and habitat

outer slope of the reef, in caves.

Distribution

In French Polynesia : Tuamotu

J Hooper (2014). QM0656 *Astrosclera willeyana* Lister, 1900. In: Hall, K.A. & Hooper, J.N.A. (2014)



Family: Hymerhabdiidae

***Hymerhabdia* sp. (4743) (OTU QM4743)**

Order
Agelasida

Family
Hymerhabdiidae



External characters

Encrusting; cushions or mounds attached to hard substrate.

Colour

red in life

Skeletal Characters

Oscules	small, apical to raised portions of sponge, numerous; not visible in ethanol.
Texture	compressible, dense, easily torn.
Surface ornamentation	rugose, ridges collapse slightly in ethanol, but remain visible.
Ectosomal skeleton	rhabdostyles and centrangulate acanthose microxeas at surface, form tangential layer.
Choanosomal skeleton	confused skeleton of very large styles and rhabdostyles, with centrangulate acanthose microxeas scattered throughout.

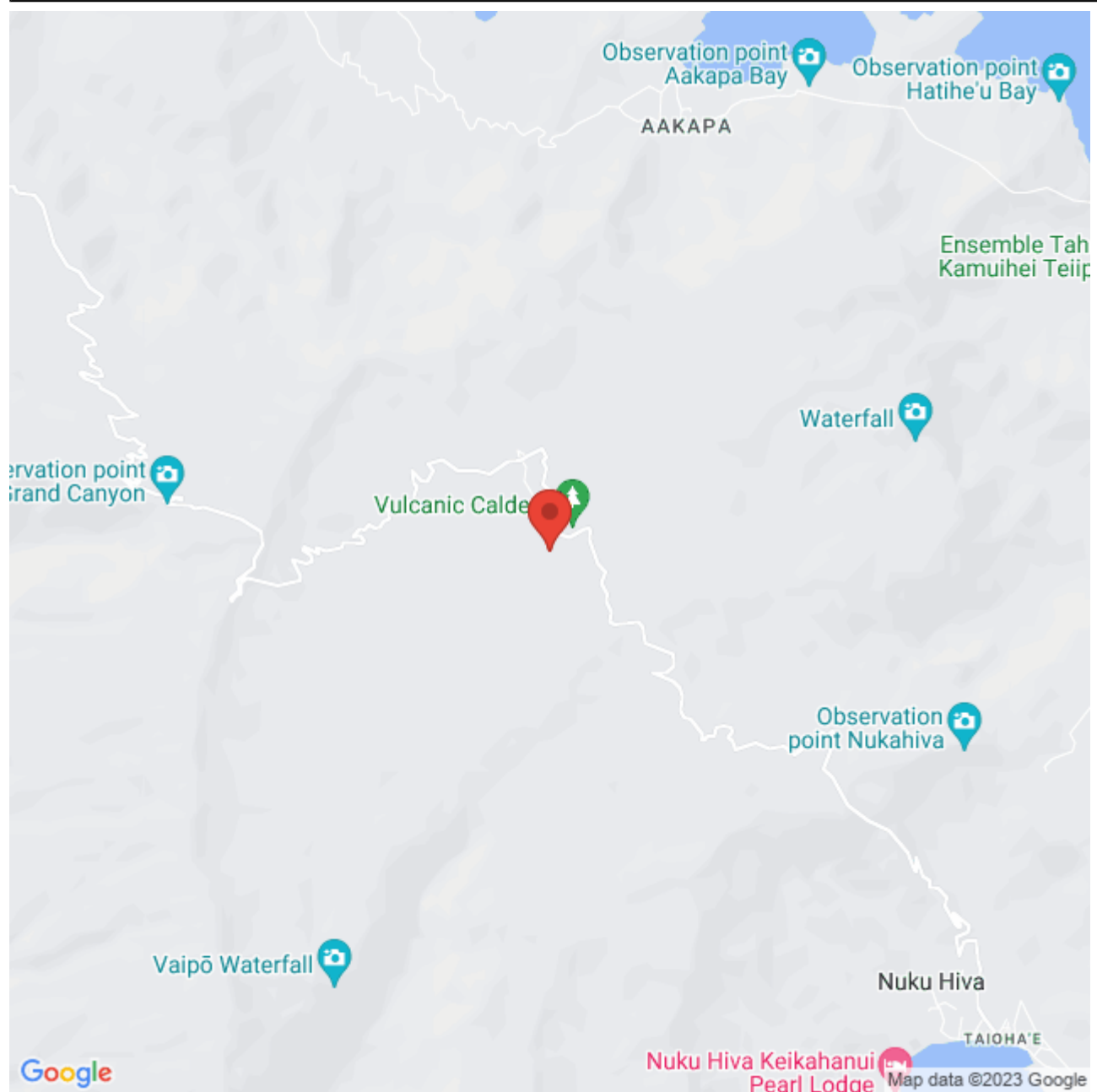
Distribution

In French Polynesia: Marquesas is.

Ecology and habitat

Rocky slope

P Sutcliffe (2014). QM4743 Hymerhabdia sp. (OTU QM4743) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Prosuberites* sp. (OTU QM1680) (OTU QM1680)**

Order
Agelasida

Family
Hymerhabdiidae



External characters

thinly encrusting.

Colour

bright orange-yellow in life; beige-fawn in ethanol.

Skeletal Characters

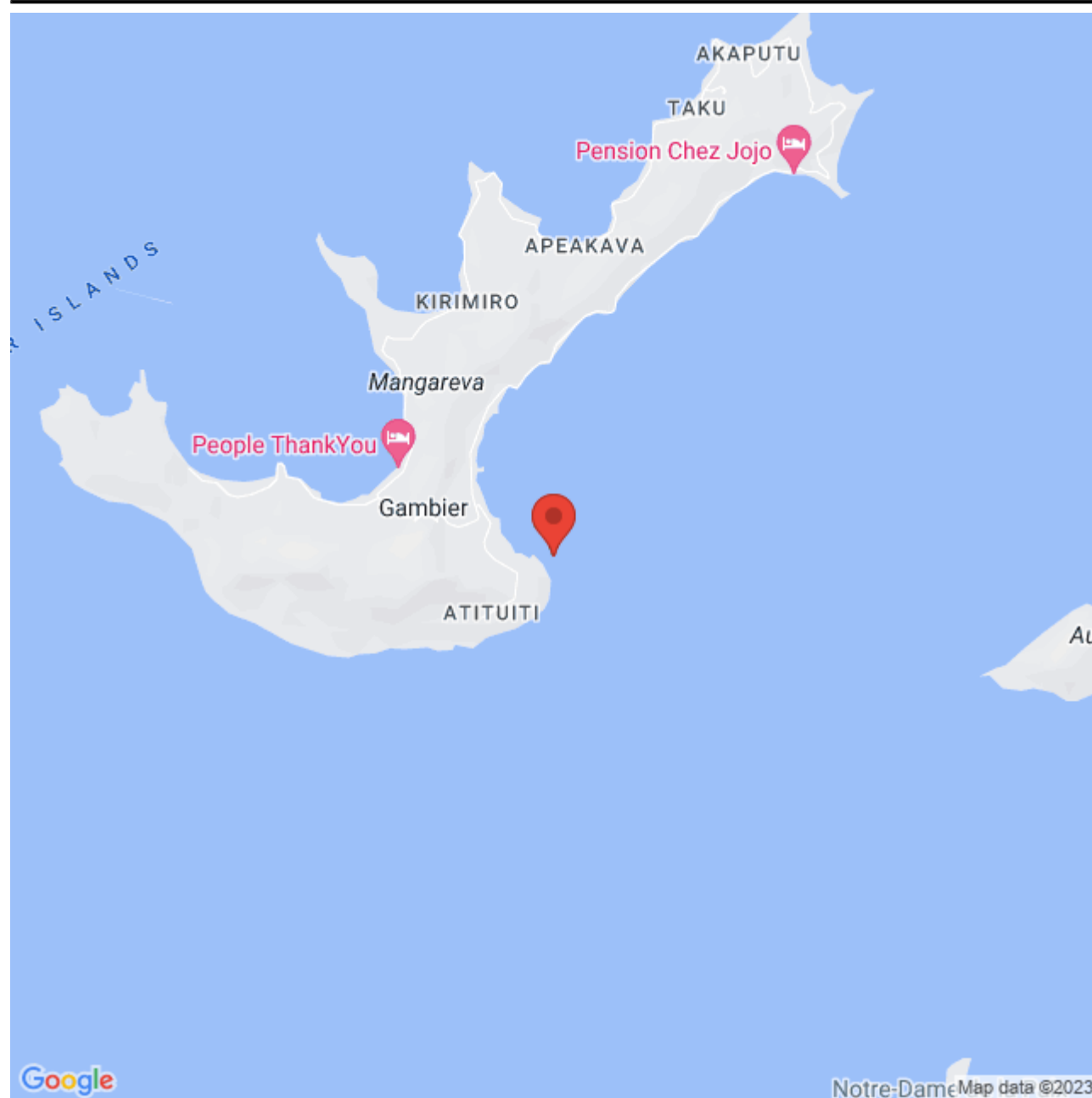
Oscules	small, <1 mm (d), conspicuous over surface in ethanol.
Texture	soft, compressible, resilient, easily torn.
Surface_Ornamentation	smooth, yet velvety, microhispid.
Ectosomal_Skeleton	not well distinguished from choanosome; surface penetrated by points of tylostyles.
Choanosomal_Skeleton	vaguely radiating architecture; spicules emanate from basal layer of spongin; basal layer very dense; long tylostyles with heads embedded in spongin layer, radiate away from base, arranged perpendicular to basal layer; smaller tylostyles disorganised; pigment granules scattered throughout; incorporates small amount of detritus (diatoms, foreign sigmas, microxeas).
Megascleres	tylostyles: 2 classes class 1: very large, ~1600 ?m; ends sharply pointed, tyle blunt; tend to subtylote; class 2: smaller, finer, ~400 ?m; ends very sharply pointed, tyle large, well-rounded.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

In French Polynesia: archipelagos of the Society and Gambier

Ecology and habitat

In the lagoon, on hard substrate.



Order: Astrophorida

Family: Geodiidae

***Geodia* sp. (4901) (OTU QM4901)**

Order
Astrophorida

Family
Geodiidae



External characters

Fill here

Colour

White

Skeletal Characters

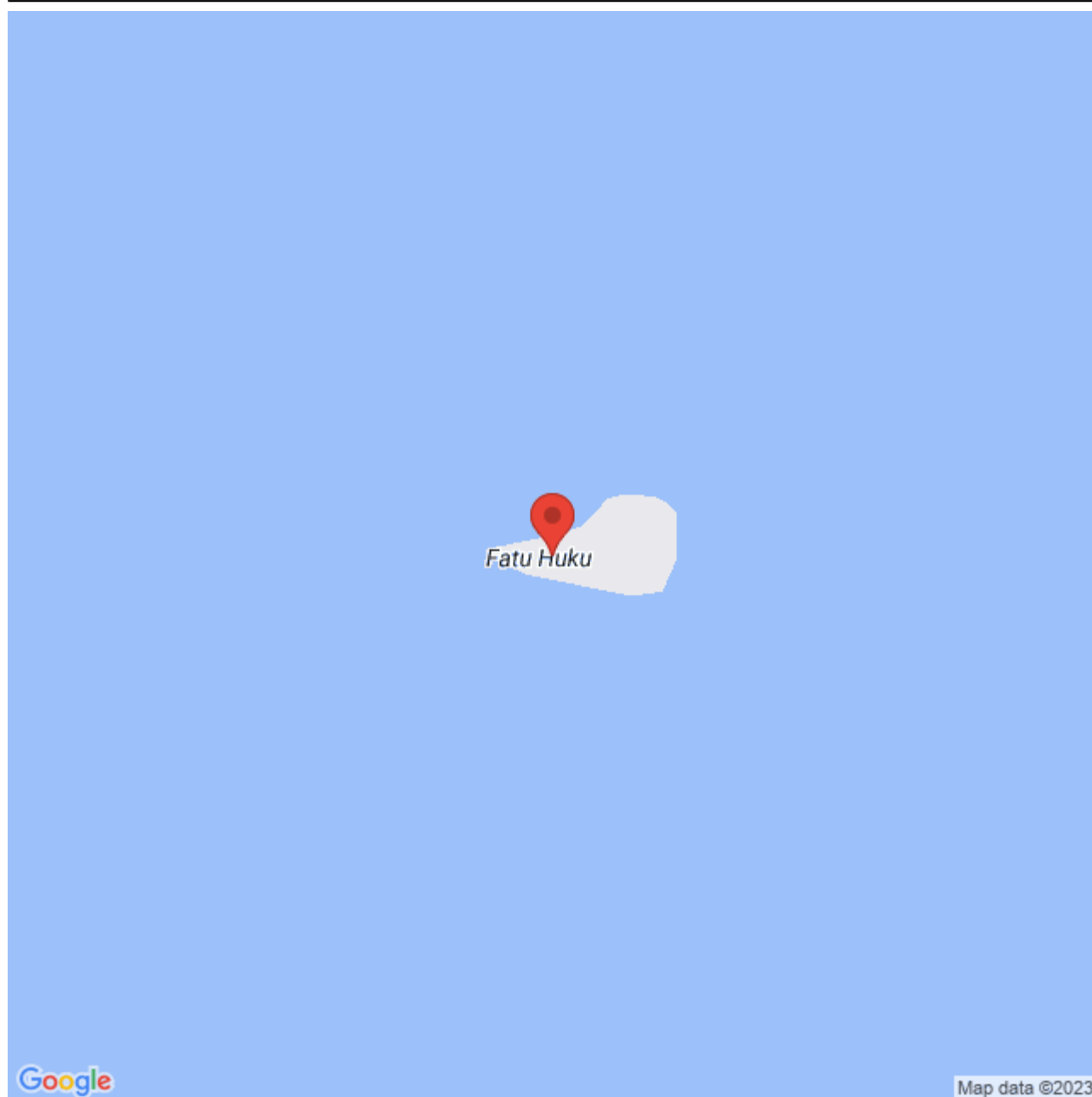
Fill here

Ecology and habitat

On sandy slope.

Distribution

In French Polynesia : Marquesas is.



Order: Axinellida

Family: Axinellidae

***Axinella* sp. (OTU QM0353) (OTU QM0353)**

Order
Axinellida

Family
Axinellidae



External characters

meandering, flabellate, digitate.

Colour

bright orange in life.

Skeletal Characters

Surface_Ornamentation	prominently microconulose, similar to species of <i>Ulosa</i> .
Choanosomal_Skeleton	plumose brushes of styles, oxeas or styloxeas (similar to <i>Clathria</i> (<i>Clathria</i>) <i>biclatrata</i> Hooper & Wiedenmayer, 1994).
Megascleres	styles; oxeas or styloxeas: 180–260 × 6–16 ?m.
Microscleres	nil.
Mudmap_Author	Queensland Museum
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Society islands

In Pacific Ocean: Australia

Ecology and habitat

In the lagoon, in a bay, in a muddy environment.

Queensland Museum (2014). QM0353 *Axinella* sp. (OTU QM0353) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Phakellia carduus* (OTU QM0107)**

Order
Axinellida

Family
Axinellidae



External characters

Digitate thin fan with short holdfast, or thickly encrusting plate connected directly to substrate

Colour

Orange alive, pale or light brown preserved

Skeletal Characters

Oscules	not observed
Texture	firm, harsh, flexible
Surface_Ornamentation	Macroscopically even, microscopically conulose surface.
Ectosomal_Skeleton	plumose styles protruding through surface singly or in bundles
Megascleres	Oxeas long flexuous, strongyles (~770 x 7 um and 950 x 3 um), some styles (310 x 7 um) and asymmetrical oxeas (340 x 12 um).
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tuamotu islands

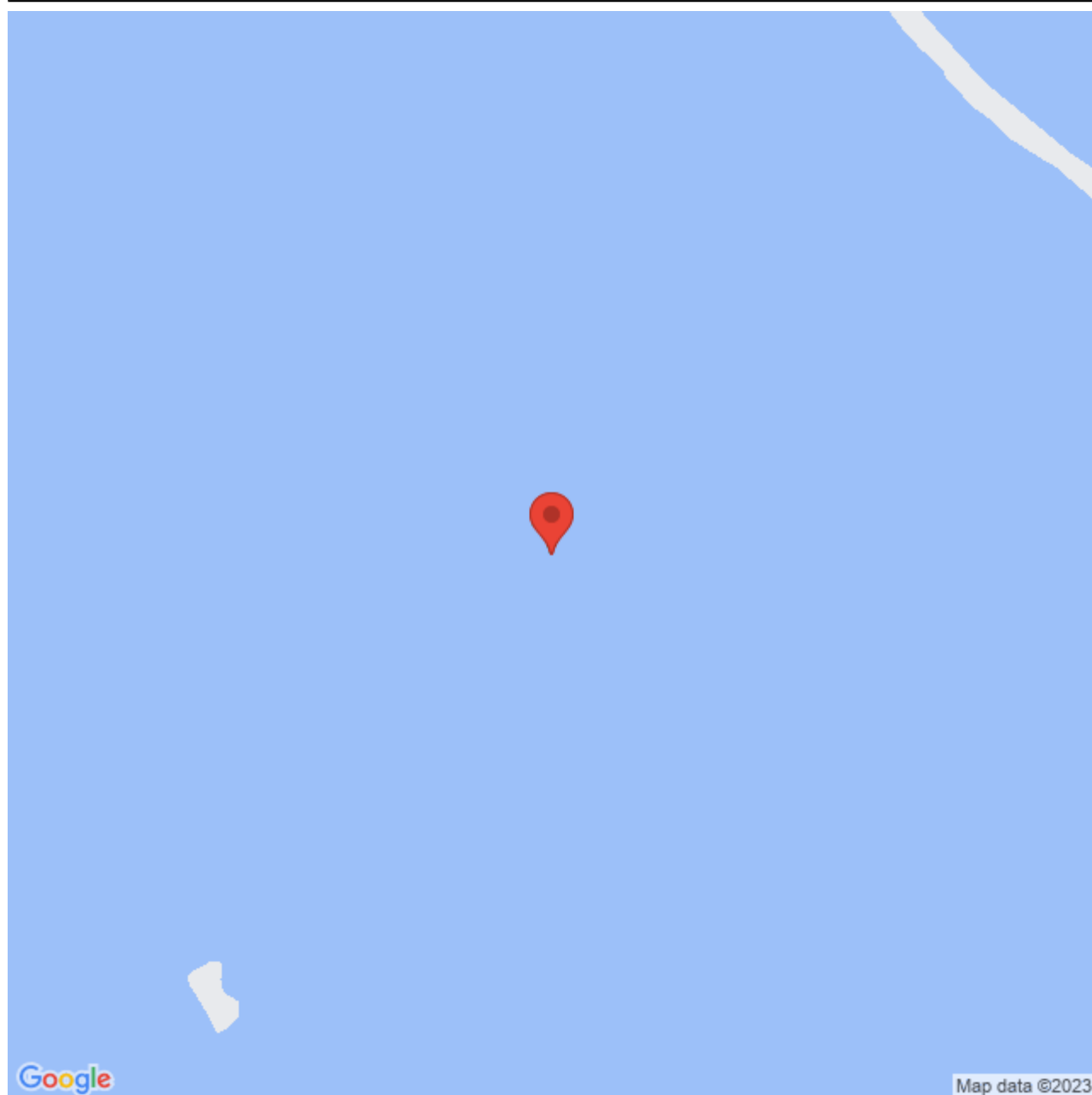
Pacific ocean : Australia, Papua New Guinea

Indian ocean: Western Australia

Ecology and habitat

Inner reef pass, on pinnacles.

J Hooper (2014). QM0107 *Phakellia carduus* (Lamarck, 1814). In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Phakellia* sp (OTU QM4859) (OTU QM4859)**

Order
Axinellida

Family
Axinellidae



External characters

thickly flabellate with digitate or lobate margins

Colour

pink to red on deck

Skeletal Characters

Oscules	small oscules on proximal surface, slightly raised above the surface
Texture	harsh, compressible
Surface_Ornamentation	surface minutely conulose and hispid
Ectosomal_Skeleton	ectosomal skeleton with one or more protruding long thicker styles
Choanosomal_Skeleton	protruding long thicker styles embedded in light collagen and with their bases embedded in a paratangential subectomal skeleton, mesohyl with poor collagen
Megascleres	includes long thin styles and long thin sinuous or contort strongyles
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

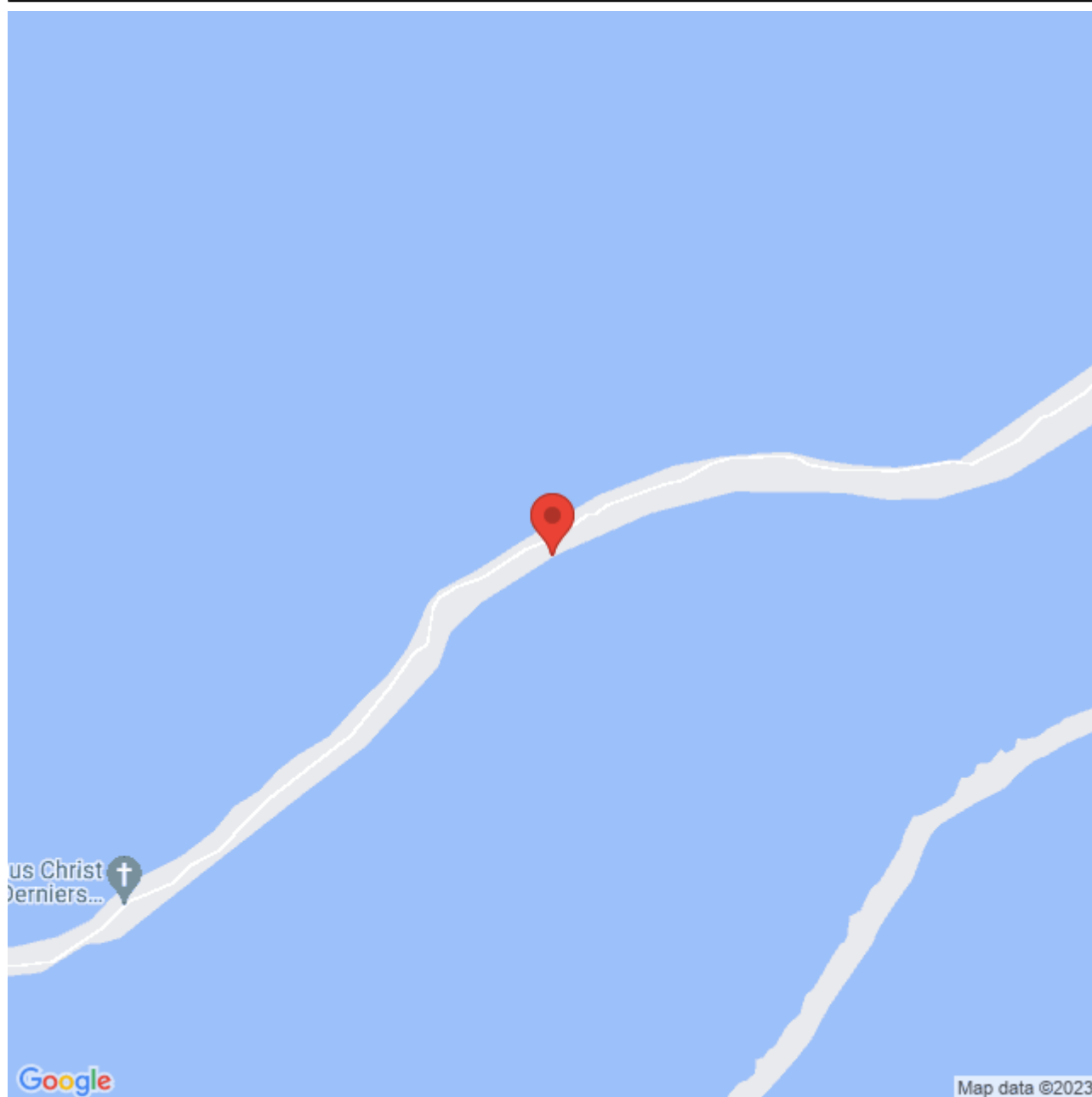
Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

On the outer reef slope.

JNA Hooper (2014). QM4859 *Phakellia* sp (OTU QM4859) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Phycopsis* sp. (OTU QM1640) (OTU QM1640)**

Order
Axinellida

Family
Axinellidae



External characters

arborescent, with erect digitate branches.

Colour

bright orange-red in life; greyish-beige in ethanol.

Skeletal Characters

Oscules	small, between numerous surface conules.
Texture	firm, compressible.
Surface_Ornamentation	many regular bifurcate surface processes, producing a Reniochalina-type surface.
Ectosomal_Skeleton	plumose brushes of spicules protrude through surface, push surface membrane into conules.
Choanosomal_Skeleton	plumo-reticulate, without axial compression; primary fibres multispicular, ascending, plumose, spongin, cored by styles; primary fibres interconnected by paucispicular, transverse, secondary fibres cored by styles; light, granular collagen in mesohyl.
Megascleres	styles: slightly subtylote.
Microscleres	nil.
Mudmap_Author	Queensland Museum
Mudmap_Editor	Kathryn Hall

Distribution

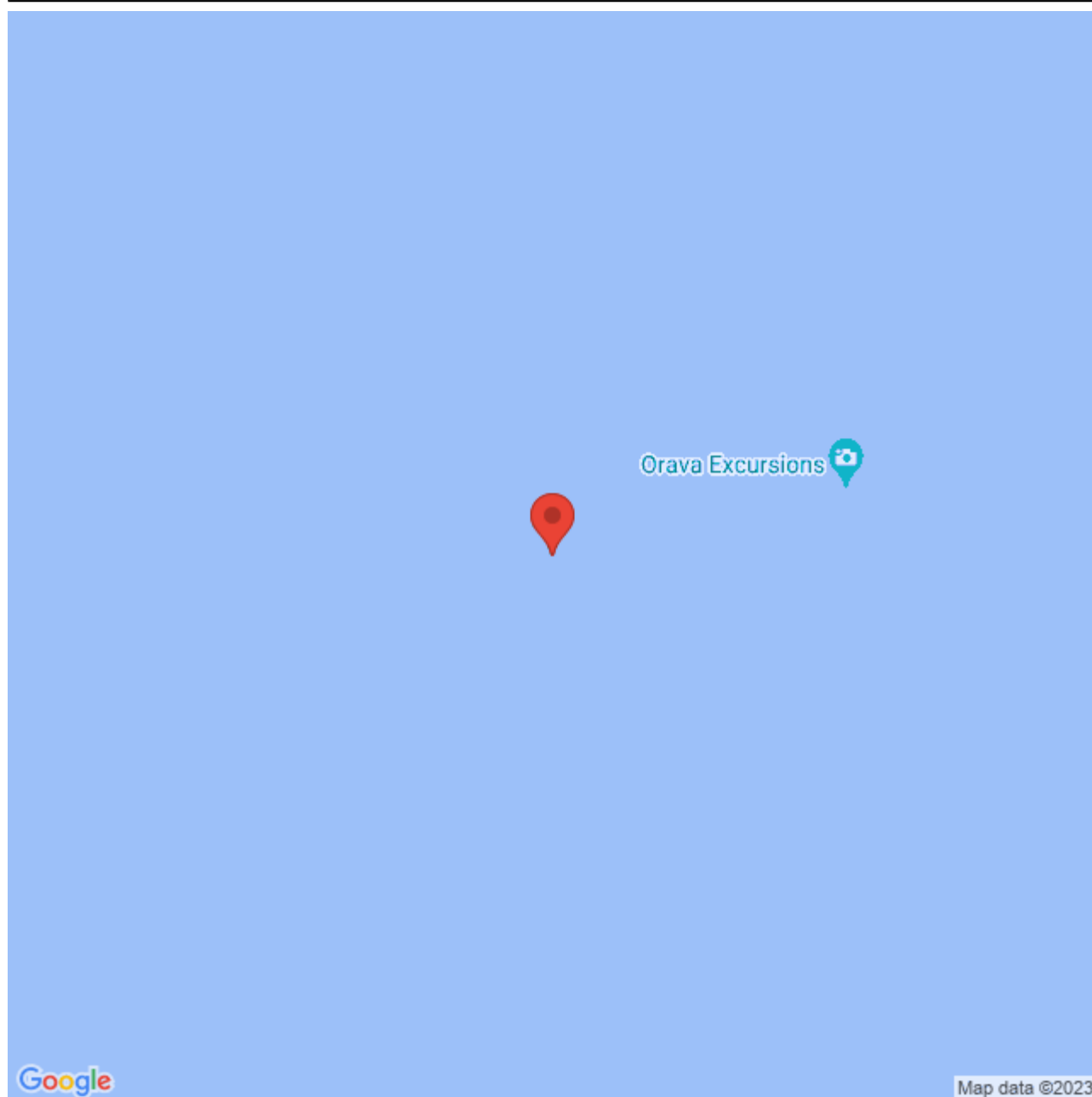
In French Polynesia: Society, Tuamotu and Marquesas islands

Pacific ocean: Australia, Fiji, Palau, Papua New Guinea, Solomon islands, Vanuatu

Ecology and habitat

Mainly on the outer reef slope, or on the rocky wall/slope in Marquesas.

On pinacles in the lagoon in Tuamotu islands



Family: Heteroxyidae

Negombo sp. (OTU QM4210) (OTU QM4210)

Order
Axinellida

Family
Heteroxyidae



External characters

Massive

Colour

COLOUR: Light purple/pink alive; Brown in EtOH

Skeletal Characters

Oscules	Large siphons from surface.
Texture	Firm, harsh, brittle.
Surface_Ornamentation	Optically smooth although partly covered by encrusting fauna.
Ectosomal_Skeleton	Tangential surface layer of sanidaster like acanthose microrhabds.
Choanosomal_Skeleton	Microrhabds also scattered throughout the mesohyl. halichondrioid tract of large oxeas forming radial compact tracts.
Megascleres	MEGASCLERES: Oxeas
Microscleres	MICROSCLERES: Microrhabds (sanidaster like)
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Marquesas islands

In Pacific Ocean: Australia

Ecology and habitat

On hard substrate, in sandy environment.

Negombo sp. (OTU QM4210) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Raspailiidae

***Echinodictyum asperum* (OTU QM0133)**

Order
Axinellida

Family
Raspailiidae



External characters

Honeycomb-like, clathrous reticulation of flattened cylindrical branches, forming spherical, elongate-bulbous, arborescent or digitate masses.

Colour

Light brown to grey-brown or beige alive.

Skeletal Characters

Oscules	Not differentiated from honeycombed construction.
Texture	Firm, compressible, difficult to tear.
Surface_Ornamentation	Optically uneven, smooth, microscopically hispid, prominently cavernous.
Ectosomal_Skeleton	Interconnected small fibre bundles producing a finer, secondary reticulation on surface.
Choanosomal_Skeleton	Irregularly reticulate, cavernous.
Megascleres	Choan. oxeas (150-565 x 3-20 µm); subect. styles (157-618 x 2-13 µm); ect. spicules absent; echinating acanthostyles with tapering points, evenly spined, fine spines (93-141 x 4-12 µm).
Microscleres	nil.

Distribution

In French Polynesia: Society, Tuamotu and Gambiers islands.

Pacific Ocean: Australia, Micronesia, Palau, Papua New Guinea

Indian Ocean: Western Australia

Ecology and habitat

In the lagoon, on pinnacles.

QM0133 *Echinodictyum asperum* Ridley & Dendy, 1886. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Echinodictyum* sp (OTU QM4862) (OTU QM4862)**

Order
Axinellida

Family
Raspailiidae



External characters

massive, clathrous, tangle of interlocked branches

Colour

dark brown to black alive, grey-brown in etoh

Skeletal Characters

Oscules	not observed
Texture	harsh
Surface_Ornamentation	spiky
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Austral islands

Ecology and habitat

In a muddy bay.

JNA Hooper (2014). QM4862 Echinodictyum sp (OTU QM4862) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Stelligeridae

***Higginsia anfractuosa* (OTU QM1086)**

Order
Axinellida

Family
Stelligeridae



External characters

Erect, globular, cylindrical digit, tapering towards base and apex, 62mm long, 24mm diameter at base, 32mm widest diameter, attached directly to substrate (with embedded detritus in basal end), without stalk or other processes.

Colour

Pale orange alive (Munsell 7.5YR 8/8), olive-brown in ethanol.

Skeletal Characters

Oscules	Massive, ranging up to a cm in diameter, with raised and expanded membranous lip resembling a "sucker", and in some specimens appearing to cover the entire surface in situ; generally collapsing in air and visible only as small conules.
Texture	Texture rubbery, compressible.
Surface_Ornamentation	Evenly distributed, rounded Cliona-like papillae, up to 2.5mm diameter, only raised slightly above surface, each with a terminal apical oscule (closed when exposed to air or preserved, 1.0-1.5mm diameter). Surface with distinct (non-detachable) dermis, more darkly pigmented than choanosomal skeleton.
Ectosomal_Skeleton	Heavy collagenous ectosomal layer, 100-250µm wide, darkly pigmented, containing scattered megascleres and microscleres, predominantly paratangential to the surface. Around oscules spicules ordered into diverging rays, presumably supporting surface papillae and providing support for oscule contractile mechanism.

Choanosomal_Skeleton	Skeleton plumose-halichondrioid, with predominantly ascending skeletal tracts, meandering and rejoining throughout skeleton; fibre meshes irregular, elliptical-oval, more cavernous in interior than peripheral skeleton; no axial compression and no differentiation between axial and extra-axial skeletons; spongin fibres only lightly invested with spongin, 30-90µm diameter, with poorly differentiated primary and secondary elements; fibres fully cored with megascleres, dispersed in plumose-diverging tracts. Mesohyl contains heavy collagen and abundant loose megascleres and microscleres. Choanocyte chambers 20-85µm diameter.
Megascleres	Vestigial megascleres, predominantly strongyles, occasionally styloid or strongyloxeas, straight, slender, with symmetrical, rounded ends, or slightly tapering hastate points (238-(298.2)-318 x 2.5-(3.3)-4.5).
Microscleres	Acanthoxeas long, slender, usually straight, occasionally asymmetrical, evenly spined, granular spination, with tapering, sharply pointed ends (106-(129.3)-173 x 2.5-(2.9)-3.5). Two size categories of raphides present, both straight, thin, tapering to sharp points.
Mudmap_Author	John Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Marquesas Islands

In Pacific Ocean: Australia, Fiji, New Caledonia, Vanuatu, Guam

Ecology and habitat

On rocky wall / slope

John Hooper (2014). QM1086 *Higginsia anfractuosa* Hooper & Lévi, 1993. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Order: Biemnida

Family: Biemnidae

***Neofibularia hartmani* (OTU QM0928)**

Order
Biemnida

Family
Biemnidae



External characters

Thickly lobate, massive, bulbous-encrusting sponge with lobes/bulbs fused to adjacent bulbs, between 20-55mm diameter, up to about 40mm high, spreading about 120mm across dead coral substrate.

Colour

Pale yellow-brown or khaki-brown alive (Munsell 2.5Y 8/10), often partially silt-covered, dark brown in ethanol.

Skeletal Characters

Oscules	Large oscules situated on apex of bulbs, 2-8mm diameter, with slightly raised rims, contracting to smaller diameter when preserved.
Texture	Compressible, slimy, highly toxic mucus (topical dermatitis and local pain)
Surface_Ornamentation	Well developed sculpturing, consisting of close-set, interconnected microconules, forming web-like striations on surface.
Ectosomal_Skeleton	Ectosome membranous, lightly arenaceous, with abundant heavily pigmented spongin, but without specialised spicule skeleton. Irregular plumose tufts of choanosomal strongyles protrude through surface, paratangential or erect on surface, more-or-less corresponding to position of surface conules; ectosome rarely intact in preserved material.

Choanosomal_Skeleton	Skeletal architecture reticulate, with differentiated primary (multispicular) and secondary (uni- and paucispicular) spongin fibres. Primary fibres usually fully cored with choanosomal strongyles, 50-90µm diameter; secondary fibres with fewer spicules packed abreast, 15-40µm diameter. Fibre reticulation produces elongate, oblong or oval meshes, 35-140µm diameter, with moderate quantities of collagen and foreign particles, and abundant microscleres. Choanocyte chambers not observed, obscured by foreign debris, microscleres and loose megascleres.
Megascleres	Choanosomal strongyles long, thick or thin, slightly curved, symmetrical or asymmetrical (218-(257.3)-280 x 3-(5.7)-9).
Microscleres	Microxeas clearly divided into two sizes, both relatively long, stout, widest at midsection (I:28-(38.0)-51 x 0.5-(0.9)-1.2; II:69-(79.1)-94 x 0.8-(1.6)-2.0). Raphides abundant, long, straight, hair like (79-(86.5)-115 x 0.2-(0.6)-0.8). Sigmas incomplete
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society and Austral islands.

Pacific Ocean: Fiji, Australia, New Caledonia, Micronesia

Ecology and habitat

In a muddy bay, on dead corals.

J Hooper (2014). QM0928 *Neofibularia hartmani* Hooper & Lévi, 1993. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Order: Bubarida

Family: Bubaridae

***Bubaris* sp (OTU QM4855) (OTU QM4855)**

Order
Bubarida

Family
Bubaridae



External characters

small subspherical

Colour

yellow alive

Skeletal Characters

Oscules	single small apical osculum
Texture	harsh
Surface_Ornamentation	smooth, unornamented
Ectosomal_Skeleton	ectosomal skeleton detachable, consisting of small strongyles/ strongyloxeas more-or-less erect and larger strongyles running tangentially, with prominent columns of larger strongyles arising from the choanosome supporting the ectosomal crust, and generally a distinct subectosomal cavity
Choanosomal_Skeleton	choanosomal skeleton less organised, with larger and smaller spicules scattered and in tracts, moderate collagen in the mesohyl
Megascleres	megascleres consist of small, usually very curved but mostly symmetrical strongyles or strongyloxeas, and much larger strongyles including sinous or recurved strongyles/ strongyloxeas
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

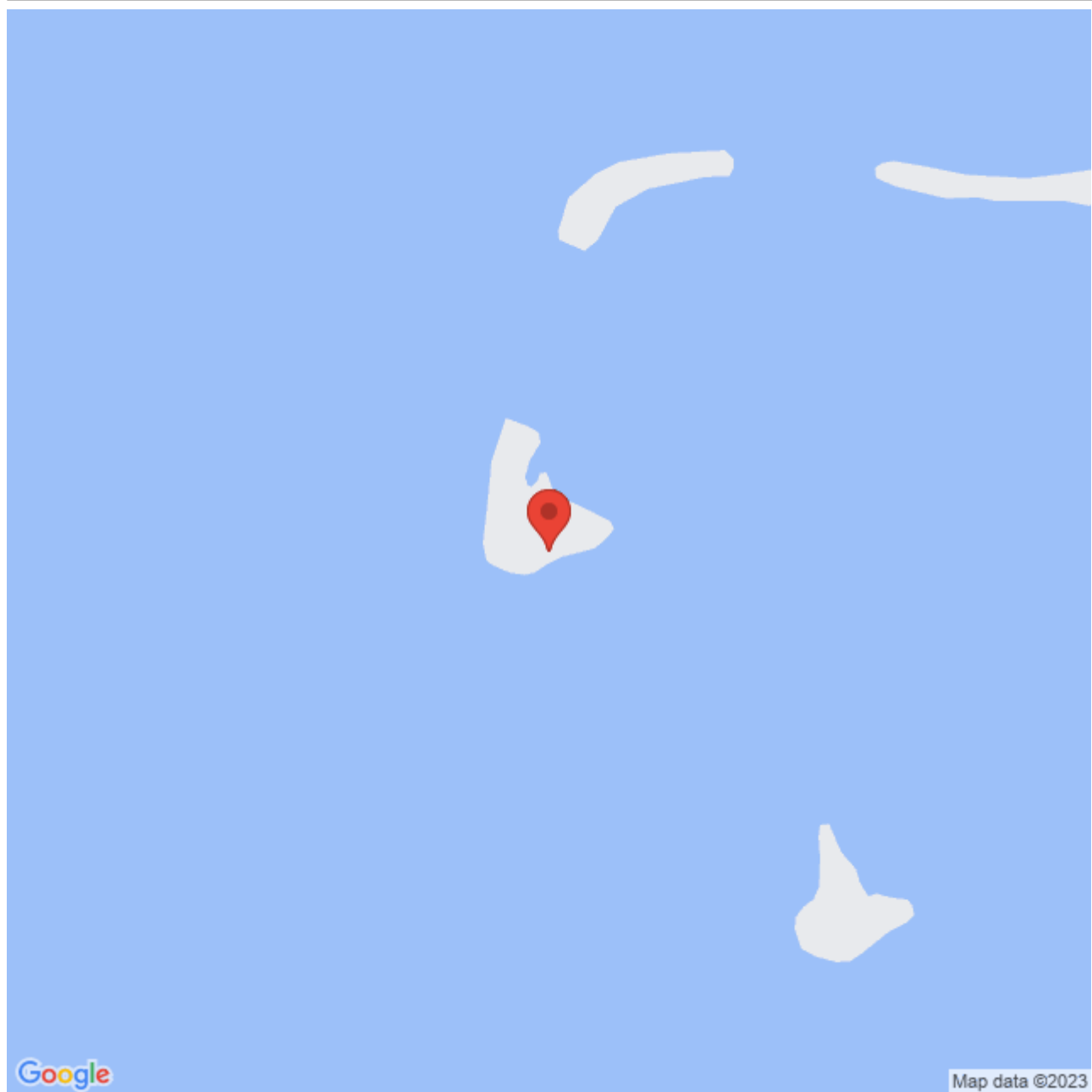
Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

Outer reef slope.

JNA Hooper (2014). QM4855 Bubaris sp (OTU QM4855) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Dictyonellidae

Acanthella 2022 Pulcherrima 2022 (OTU QM0663)

Order
Bubarida

Family
Dictyonellidae



External characters

Essai 2022-1

Colour

Essai 2022-2

Skeletal Characters

Oscules	Essai 2022-3
Texture	Essai 2022-4
Surface_Ornamentation	Essai 2022-5
Ectosomal_Skeleton	Essai 2022-6
Choanosomal_Skeleton	Essai 2022-7
Megascleres	Essai 2022-8
Microscleres	Essai 2022-9
Mudmap_Author	Essai 2022-13
Mudmap_Editor	Essai 2022-14

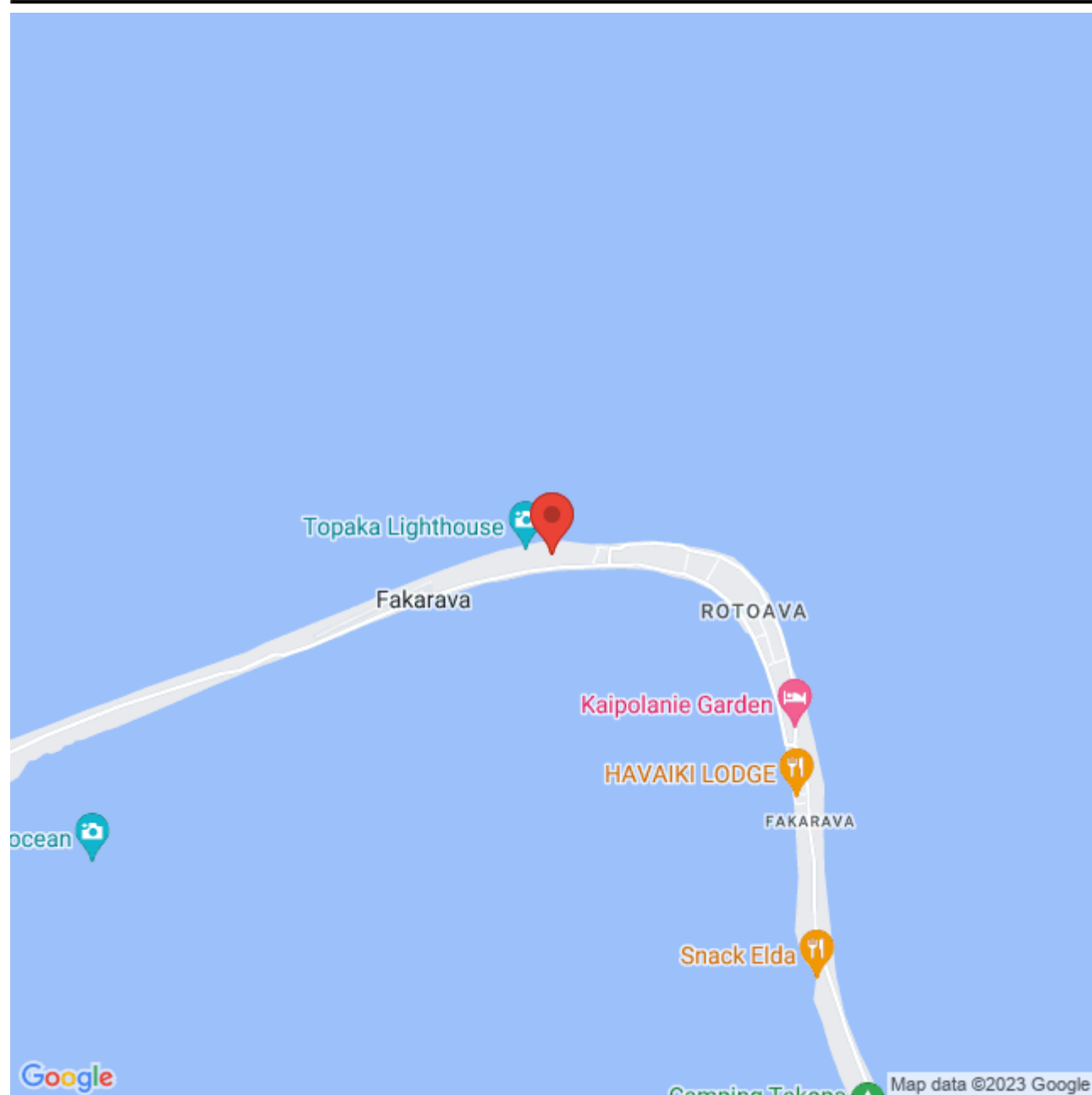
Distribution

In French Polynesia: Tuamotu

Ecology and habitat

Outer reef slope

QM0663 *Acanthella pulcherrima* Ridley & Dendy, 1886. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Rhaphoxya* sp. (OTU QM4868) (OTU QM4868)**

Order
Bubarida

Family
Dictyonellidae



External characters

massive erect ridge or plate

Colour

mustard yellow alive and on deck

Skeletal Characters

Oscules	small raised oscules on margin of plate, slightly raised above surface
Texture	firm, harsh
Surface_Ornamentation	smooth surface
Ectosomal_Skeleton	ectosomal skeleton membranous with choanosomal oxeads protruding a short distance through surface but without any apparent tangential component
Choanosomal_Skeleton	choanosomal skeleton nearly radial, slightly plumose in the subectosomal region, with spicules in vague plumose bundles; no obvious regionalisation of spicules with choanosomal skeleton, no fibres, very light collagen
Megascleres	megascleres very large slender oxeads and smaller even more slender oxeads, both very fusiform and tapering to sharp points
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Rangiroa (Tuamotu) and Tahiti

Ecology and habitat

Tahiti: in caves ; Rangiroa: in the lagoon, on pinacles



***Rhaphoxya* sp. (OTU QM4877) (OTU QM4877)**

Order
Bubarida

Family
Dictyonellidae



External characters

bulbous elongate, tubular, thickly encrusting on rock

Colour

orange-pink alive

Skeletal Characters

Oscules	large oscules with membranous raised lip
Texture	firm, flexible, harsh
Surface_Ornamentation	surface slightly uneven, pitted (ostia ?), with external aquiferous system visible
Ectosomal_Skeleton	ectosome with some detritus embedded under the surface and occasional brushes of spicules protruding
Choanosomal_Skeleton	choanosomal skeleton dendritic or plumose, with long slender tornotes only, forming branching non reticulate tracts that diverge to the surface; mesohyl lightly pigmented but abundant collagen
Megascleres	tornotes only
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tahiti

Ecology and habitat

Outer rim of the pass



Order: Chondrillida

Family: Chondrillidae

***Chondrilla* sp. (4361) (-)**

Order
Chondrillida

Family
Chondrillidae



External characters

“Boudin” shape of the sample
Smooth surface appearance
Consistency firm

Dimensions

<5 cm Ø

Colour

brown

Skeletal Characters

Fill here

Ecology and habitat

Fill here

Distribution

In French Polynesia : Society is.



Family: Halisarcidae

***Halisarca laxus* (OTU QM1485)**

Order
Chondrillida

Family
Halisarcidae



External characters

thinly encrusting, slightly lobate, subspherical

Colour

live colouration ranging from pink to pale white when growing in shelter; grey in ethanol.

Skeletal Characters

Oscules	obvious, one to several per lobe, with raised lip
Texture	soft, slimy
Surface_Ornamentation	even, unornamented: opaque, optically smooth.
Ectosomal_Skeleton	skin-like, collagenous; may have "leopard-spotted" appearance in cross section with dark pigment granules forming dense "crust"
Choanosomal_Skeleton	with dense collagen and pigment granules throughout, some cavernous oval canals, some canals appear to be lined with type A spongin
Megascleres	nil
Microscleres	nil
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Ecology and habitat

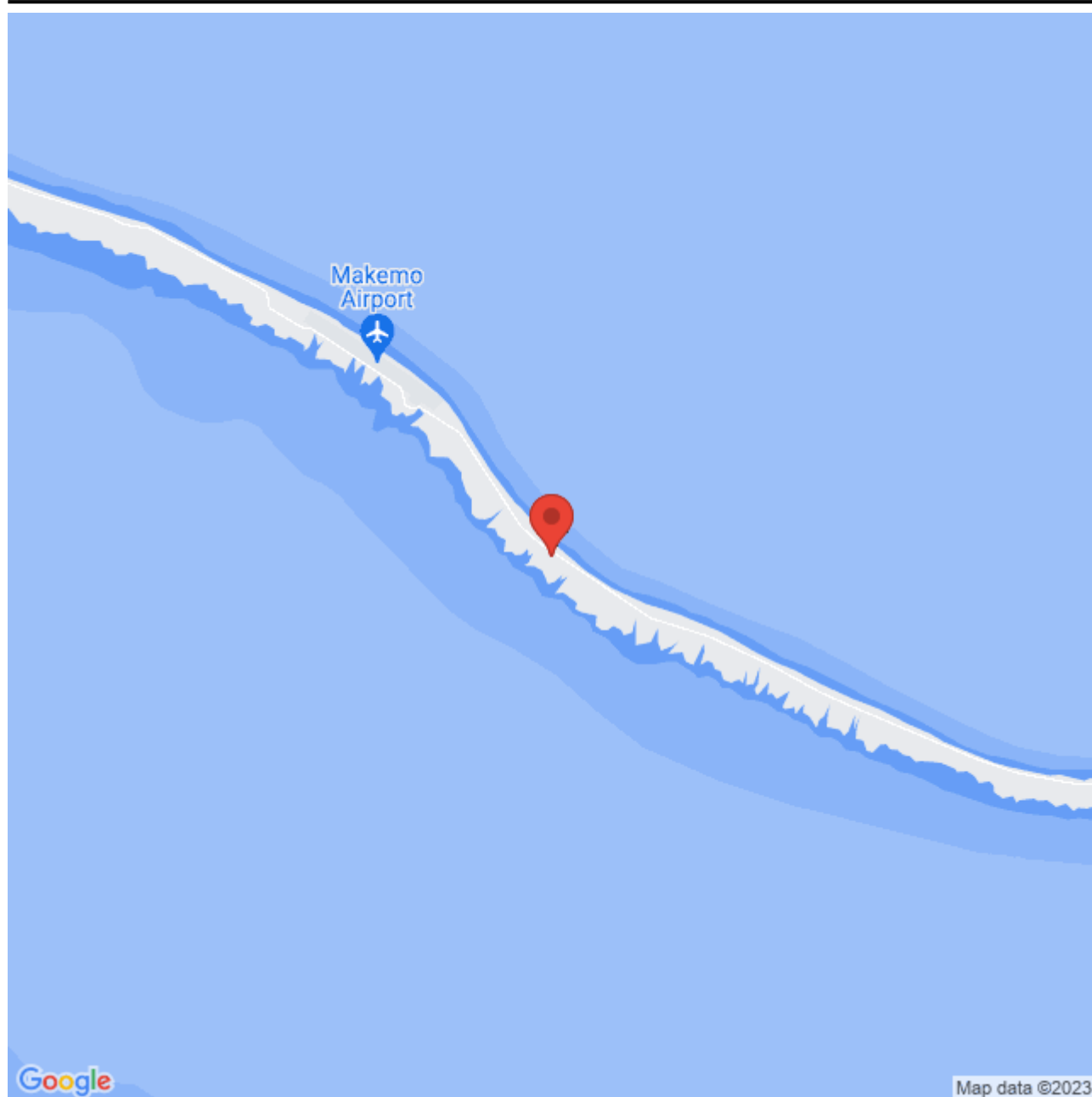
In the lagoon, on pinnacles.

Distribution

In French Polynesia: Tuamotu is.

Pacific Ocean: Australia

Hooper, J.N.A. (2014). QM1485 *Halisarca laxus*. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Halisarca* sp. (OTU QM1231) (OTU QM1231)**

Order
Chondrillida

Family
Halisarcidae



© IRD /

External characters

thinly encrusting; on verongid sponge.

Colour

bright orange in life.

Skeletal Characters

Oscules	very small, slightly raised, scattered.
Texture	slimy.
Surface_Ornamentation	smooth.
Ectosomal_Skeleton	collagenous.
Choanosomal_Skeleton	collagenous; mesohyl moderately heavy.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

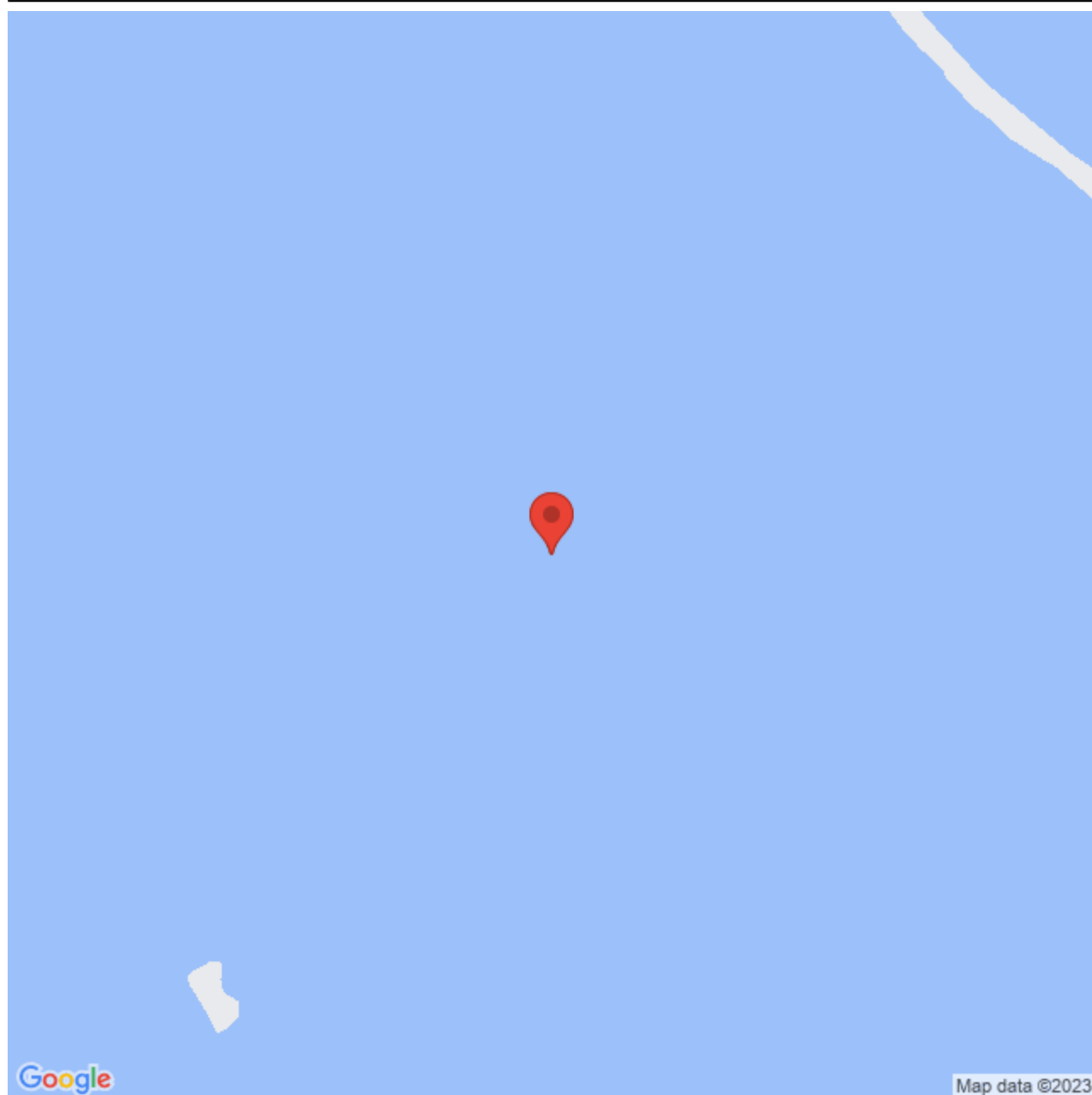
In French Polynesia: Tuamotu islands

Pacific Ocean: Australia

Ecology and habitat

In the lagoon, on pinnacles.

J Hooper (2014). QM1231 *Halisarca* sp. (OTU QM1231) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



Order: Chondrosida

Family: Chondrosiidae

***Chondrosia corticata* (OTU QM2122)**

Order
Chondrosida

Family
Chondrosiidae



External characters

thickly encrusting, bulbous mass

Colour

variable from mottled dark brown, pale brown to black in life; dark grey to black in ethanol.

Skeletal Characters

Oscules	many, minute, regularly distributed over the surface.
Texture	firm, incompressible.
Surface_Ornamentation	fleshy, collagenous, heavily pigmented; even, unornamented.
Ectosomal_Skeleton	membranous, heavily collagenous with a prominent cortex over 1mm thick; abundant pigment granules in the vicinity of the cortical layer.
Choanosomal_Skeleton	collagenous, no spicules, permeated by fine cavities; mesohyl collagen dense; numerous pigment granules, not as abundant as in ectosome, clustered.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	Patricia Sutcliffe
Mudmap_Editor	K Hall

Distribution

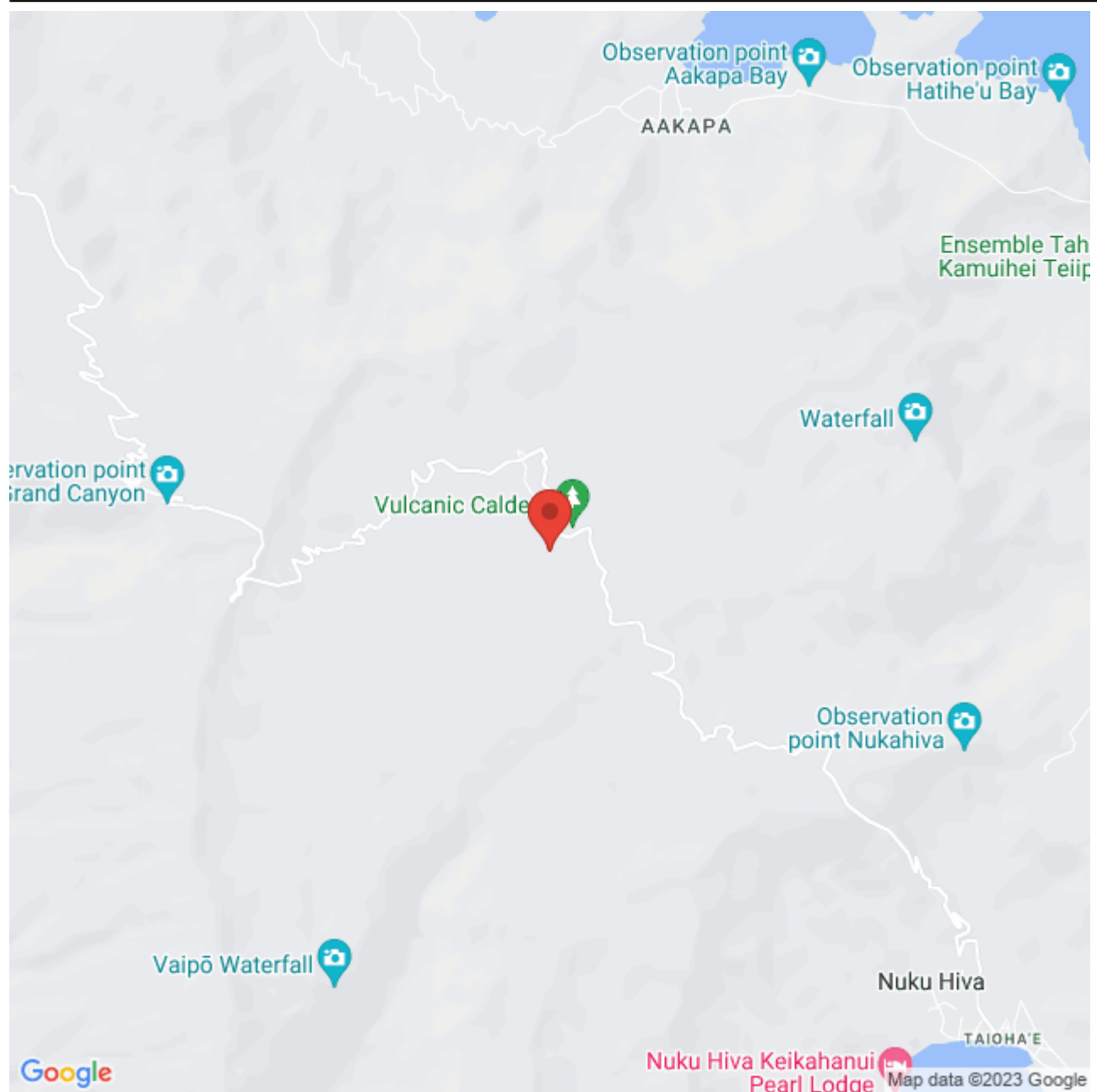
In French Polynesia: Society, Marquesas, Tuamotu, Austral islands.

Pacific Ocean: Fiji, Solomon islands, Australia, Palau, Pitcairn, Vanuatu, Guam

Ecology and habitat

On rocky slope in Marquesas. On the outer reef slope in Tuamotu. On the outer rim of the channel in Austral.

Patricia Sutcliffe (2014). QM2122 *Chondrosia corticata* Thiele, 1900. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Chondrosia* sp. (OTU QM2212) (OTU QM2212)**

Order
Chondrosida

Family
Chondrosiidae



External characters

bulbous, flattened plate at base as holdfast.

Colour

white in life (colouration probably lost); white in ethanol.

Skeletal Characters

Oscules	large, open, obvious on upper surface of bulb apices.
Texture	firm, gelatinous.
Surface_Ornamentation	opaque, membranous, smooth.; collagenous, no pigment; faint network of small sunken pits and slightly higher ridges slightly visible.
Ectosomal_Skeleton	thick, membranous, obscured by dense layer of detritus; no pigment cells.
Choanosomal_Skeleton	distinct from ectosome; mesohyl collagen heavy, homogeneous, few pigment cells scattered throughout; no detritus.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Pacific Ocean: Palau

Ecology and habitat

In caves.

QM2212 *Chondrosia* sp. (OTU QM2212) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Order: Clathrinida

Family: Leucaltidae

***Leucaltis* sp. (OTU QM2212)**

Order
Clathrinida

Family
Leucaltidae



External characters

Small tube.

Dimensions

1 to 3,5cm height.

Colour

White to pale yellow.

Skeletal Characters

Fill here

Ecology and habitat

On rocky slope.

Distribution

In French Polynesia: Marquesas is.



Family: Leucascidae

Leucascus sp. (OTU QM2212)

Order
Clathrinida

Family
Leucascidae



External characters

Small tubes.

Dimensions

Tubes around 1-1.5 cm height, colony 3-4 cm diameter

Colour

White – pale yellow

Skeletal Characters

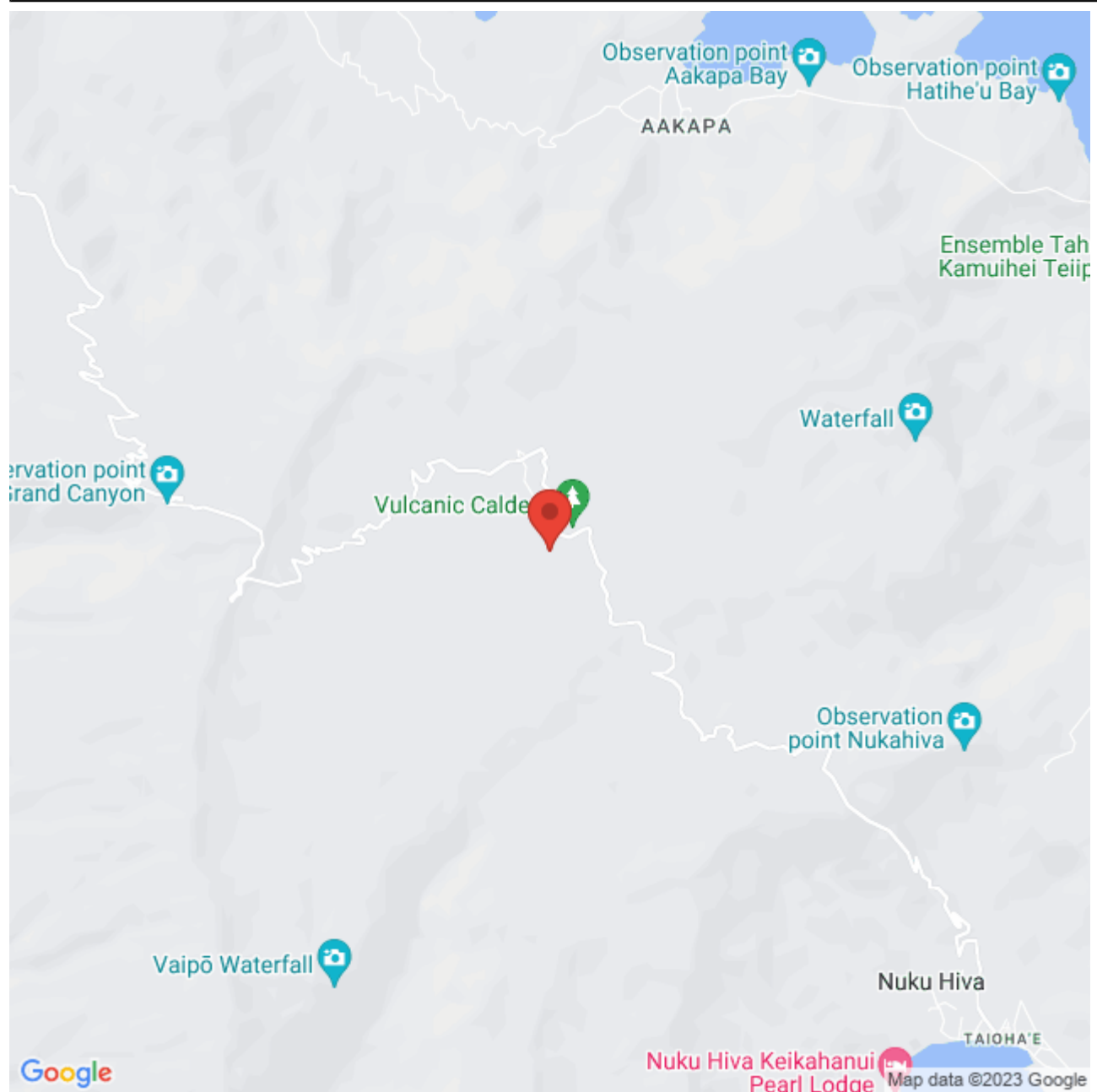
Fill here

Ecology and habitat

Rocky substrate, sciaphilous.

Distribution

In French Polynesia: Marquesas is.



Family: Leucettidae

***Leucetta microraphis* (OTU QM1065)**

Order
Clathrinida

Family
Leucettidae



External characters

Massive, convoluted, lamellate.

Dimensions

Diameter approximatively 10cm.

Colour

white to grey, yellow to greenish in life;

Skeletal Characters

Oscules	few, small, without lip, scattered on ridges.
Texture	firm, harsh.
Surface ornamentation	smooth.
Ectosomal skeleton	distinct dense cortex of small tangential large triactines, subdermal cavities directly under cortex; small sagittal triactines in oscular rim, similar to those observed for <i>Leucetta chagosensis</i> Dendy, 1913.
Choanosomal skeleton	regular triactines of 2 size classes form irregular meshwork; sagittal tetractines around exhalant canals, free actines into canals.
Megascleres	triactines: 3 size classes, regular, 1, ~750 × 80 µm, 2, ~200 × 20 µm, 3, ~150 × 20 µm; tetractines: sagittal, free actine curved, ~150 × 15 µm.
Microscleres	aquiferous system: leuconoid, excurrent canals open into larger canal leading to osculae, larger canal does not represent true atrium; spherical choanocyte chambers ~50–60 µm.

Ecology and habitat

Rim of the pass, on rocky slope.

Distribution

In French Polynesia: Society islands

Hooper, J.N.A. (2014). QM1065 *Leucetta microraphis* (OTU QM1065) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Leucetta chagosensis* (OTU QM1402)**

Order
Clathrinida

Family
Leucettidae



External characters

A massive, subspherical or pyriform sponge with a smooth surface. Large oscules, 1-2 mm in diameter, are surrounded by an elevated margin. Subcortical cavities often visible. The consistency is compact, firm, but friable.

Colour

Yellow in the living state, white in alcohol.

Skeletal Characters

Equiangular triactines of various sizes, lying tangentially in the cortex and irregularly scattered throughout the choanosome. A variable number of tetractines surround the larger exhalant canals.

Small triactines: aclines

100-180 µm x 12-20 µm, bend in the spicules surrounding the oscular margin. Large triactines, located only in the cortical skeleton: conical aclines up to 10

600 µm x 50 µm

Tetractines: basal aclines 60-120 µm x 8-12 µm, apical actine thinner.

Dimensions

Maximum diameter approximately 10 cm

Ecology and habitat

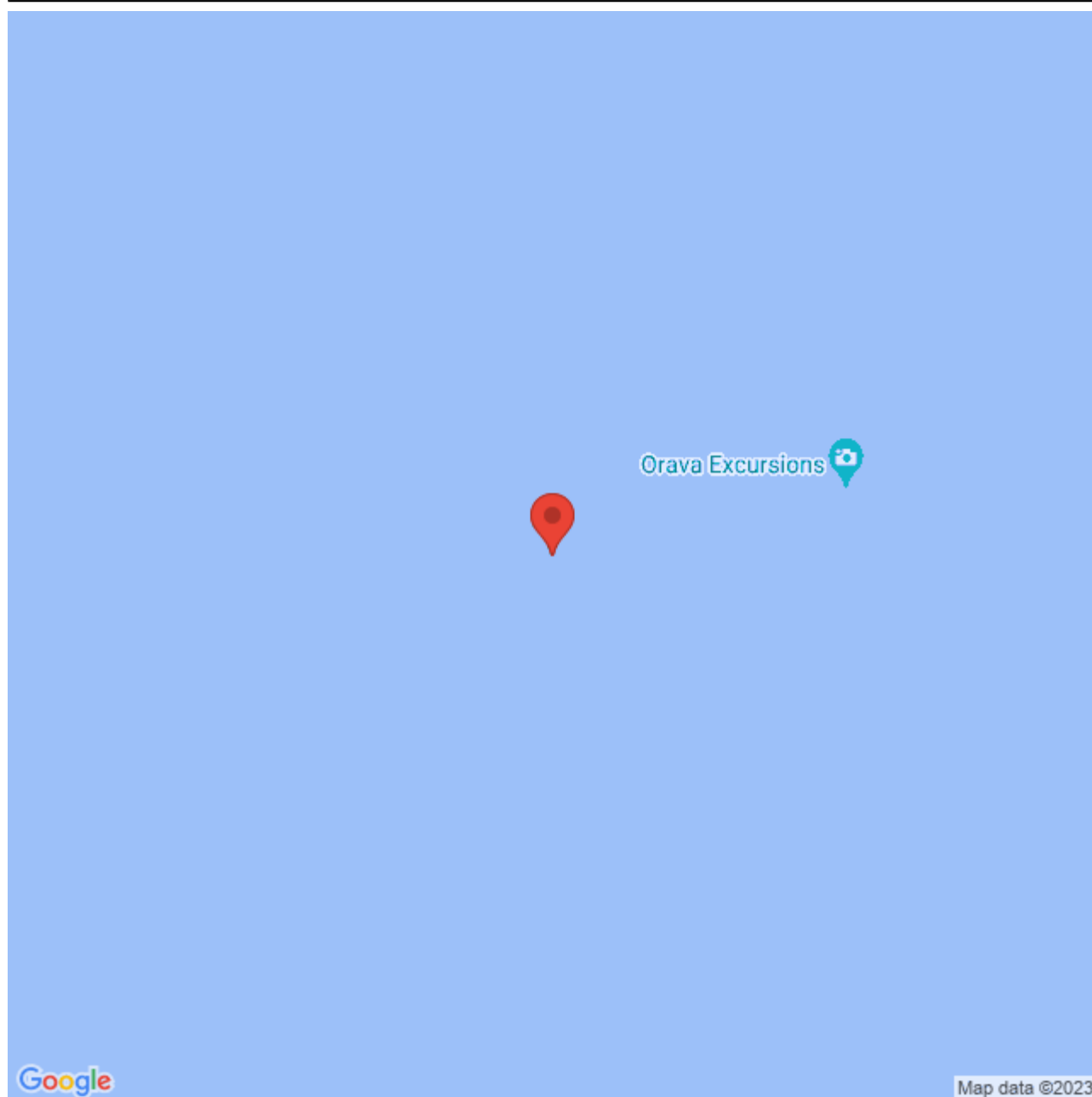
On the outer reef slope, on hard substrate.

Distribution

Indo-Pacific.

In French Polynesia: Society, Tuamotu, Marquesas islands

J Hooper (2014). QM1402 *Leucetta chagosensis* Dendy, 1913. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



Order: Clionaida

Family: Clionaidae

***Spheciospongia potamophera* (OTU QM4844)**

Order
Clionaida

Family
Clionaidae



External characters

Thinly encrusting, probably excavating surface of coral substratum

Colour

orange alive, reddish or red-orange on deck

Skeletal Characters

Oscules	few, large flaccid, raised on membraneous bulbs
Texture	velvety, soft, slimy to touch
Surface_Ornamentation	smooth
Ectosomal_Skeleton	thick crust of spirasters and denser collagen in ectosomal skeleton, with tylostyles barely protruding through surface
Choanosomal_Skeleton	choanosome with moderate collagen, abundant spirasters and brushes of tylostyles running in longitudinal tracts within choanosome, and paratangentially near periphery, supporting the ectosomal skeleton
Megascleres	long thin tylostyles with slightly swollen tyle which is predominantly terminal
Microscleres	spirasters of two sizes and morphologies, the larger with large spines forming a capital E-shaped, the smaller with small spines and shaft double S-shaped
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

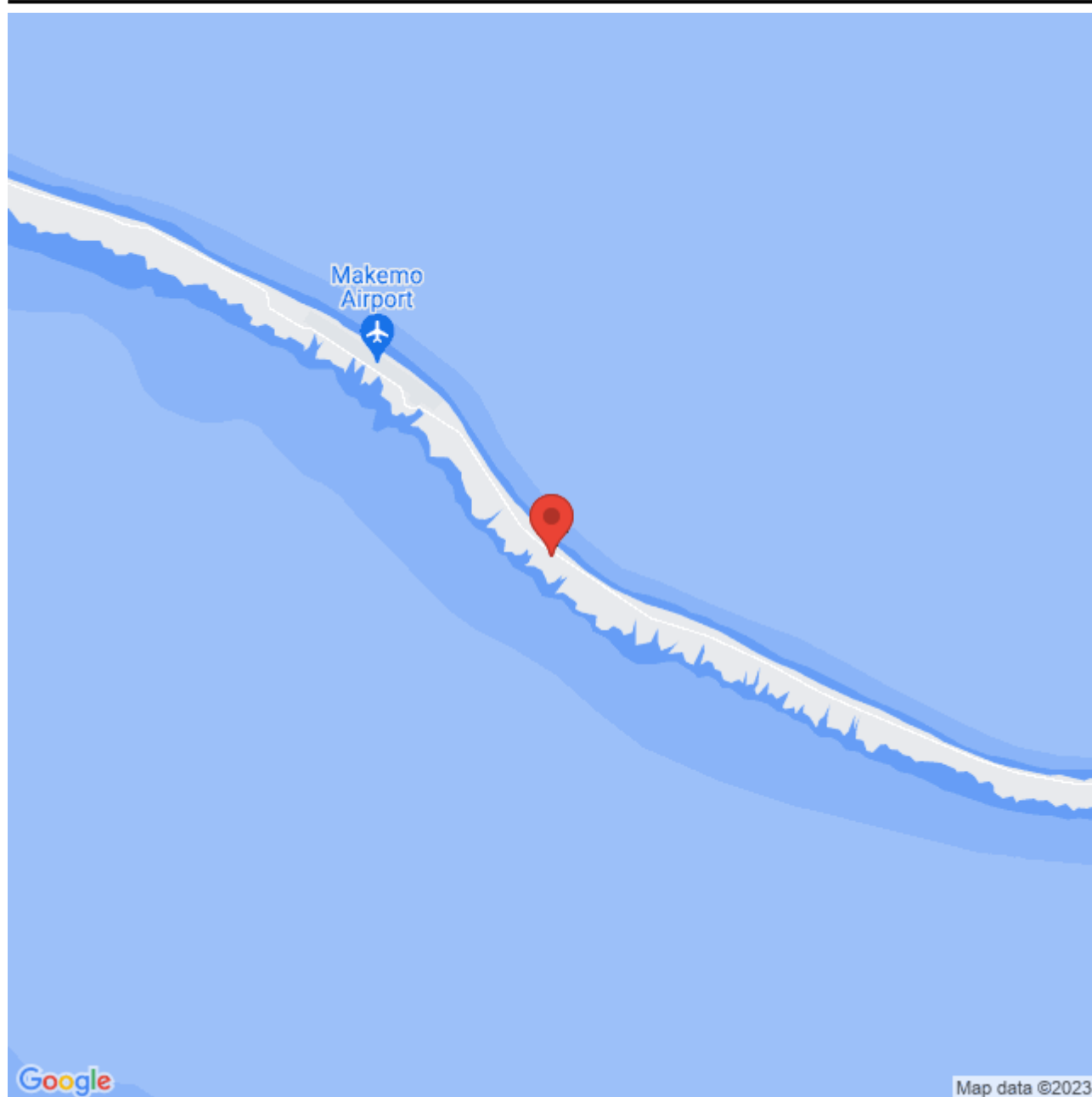
Ecology and habitat

in the lagoon, on pinnacles.

Distribution

In French Polynesia: Tuamotu islands.

Hooper, J.N.A. (2014). QM4844 *Spheciospongia potamophera* In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Spheciospongia* sp. (OTU 1142) (-)**

Order
Clionaida

Family
Clionaidae



External characters

massive, forming long, thick ridges.

Colour

purple in life; purple in ethanol; appears mottled.

Skeletal Characters

Oscules	aligned apically along ridges; large, slightly raised in life; collapse in ethanol, appear as closed, very small openings, with raised lips, forming small, hard projections.
Texture	firm, incompressible.
Surface_Ornamentation	smooth, undulating, except where oscules present.
Ectosomal_Skeleton	dense palisade of smaller tylostyles.
Choanosomal_Skeleton	large canal systems visible in subectosomal region; choanosomal megascleres form large, dense meshes; microscleres present at ectosome and throughout choanosome.
Megascleres	subtylostyles: rounded tips, 2 size classes.
Microscleres	spirasters.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: very large distribution in Marquesas archipelago.

Ecology and habitat

On rocky slope.



***Spheciospongia* sp. (OTU QM4878) (OTU QM4878)**

Order
Clionaida

Family
Clionaidae



External characters

Massive lobate low encrusting on dead coral

Colour

pale beige to white ectosome, orange below surface in life

Skeletal Characters

Oscules	surface with a few large oscules with raised membranous lips and abundant elongate pore-seives that appear contractile and through which the orange choanosomal skeleton can be seen
Texture	firm, harsh, barely compressible
Surface_Ornamentation	slightly lumpy due to conules and pore-seives
Ectosomal_Skeleton	Ectosome with a thick cortex of sand and heavily pigmented collagen
Choanosomal_Skeleton	choanosome cavernous, also with abundant detritus and pigment granules visible, and with few but robust bundles of tylostyles ascending to surface and protruding slightly through it
Megascleres	megascleres long straight thick tylostyles.
Microscleres	none seen
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tahiti

Ecology and habitat

In the lagoon, on pinnacles

John NA Hooper (2014). QM4878 *Spheciospongia* sp. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>)



Order: Dendroceratida

Family: Darwinellidae

***Aplysilla* sp. (OTU QM2034) (OTU QM2034)**

Order
Dendroceratida

Family
Darwinellidae



External characters

thinly encrusting.

Colour

olive-green in life; dark purple in ethanol.

Skeletal Characters

Oscules	several, conspicuous, discrete, moderately small, with slightly raised membranous lips, collapse out of water.
Texture	soft, compressible.
Surface_Ornamentation	opaque, membranous, optically smooth; uneven, dendritic, conulose surface, with some sections of surface raised above and separated from underlying sponge.
Ectosomal_Skeleton	membranous, irregularly pushed up into conules by dendritic choanosomal fibres; membrane may incorporate some scattered fine sand-grain detritus.
Choanosomal_Skeleton	no fibres observed but must be present to push up surface, appear to be dendritic; some fine scattered sand detritus in mesohyl; mesohyl collagen darkly pigmented purple, obscures most detail.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

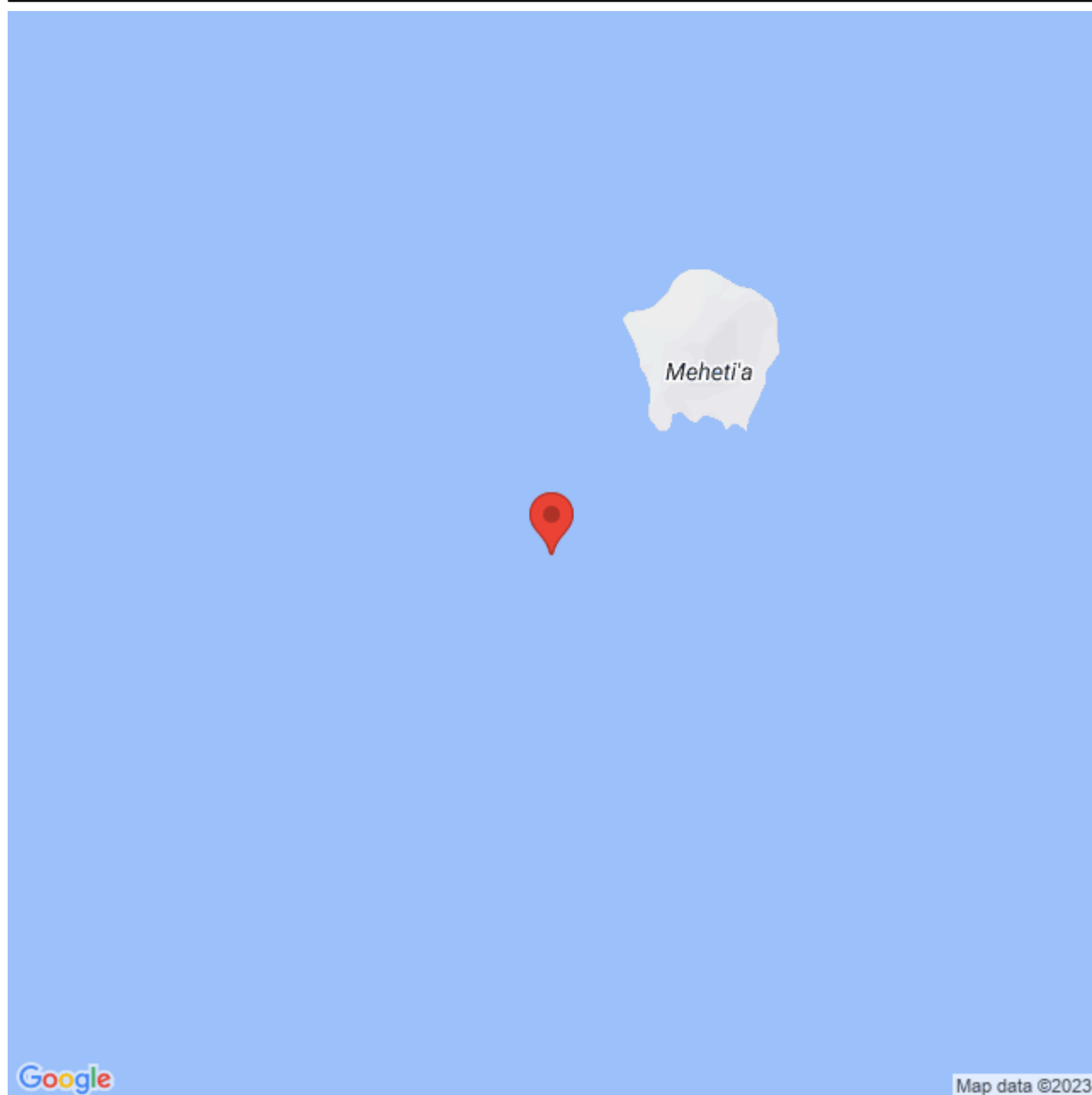
In French Polynesia: Society, Tuamotu is.

Pacific Ocean: Vanuatu

Ecology and habitat

Mostly in the lagoon, on hard substrate.

QM2034 *Aplysilla* sp. (OTU QM2034) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Chelonaplysilla delicata* (OTU QM1829)**

Order
Dendroceratida

Family
Darwinellidae



External characters

lobate, stoloniferous, spreading over substrate.

Colour

grey with white sand tracery in life; grey with white tracery in ethanol.

Skeletal Characters

Oscules	numerous, small and large, scattered over surface, with slightly raised membranous lip.
Texture	soft, compressible.
Surface_Ornamentation	opaque, membranous; uneven, covered with large pointed conules commonly connected by ridges; organised, regular, sandy reticulum over entire surface.
Ectosomal_Skeleton	membranous, arenaceous, with thick crust of fine sand grains on surface.
Choanosomal_Skeleton	dendritic, fibrous; fibres sparsely distributed; primary fibres laminated, pithed; mesohyl collagen heavy, granular, contains scattered fine detritus.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Ecology and habitat

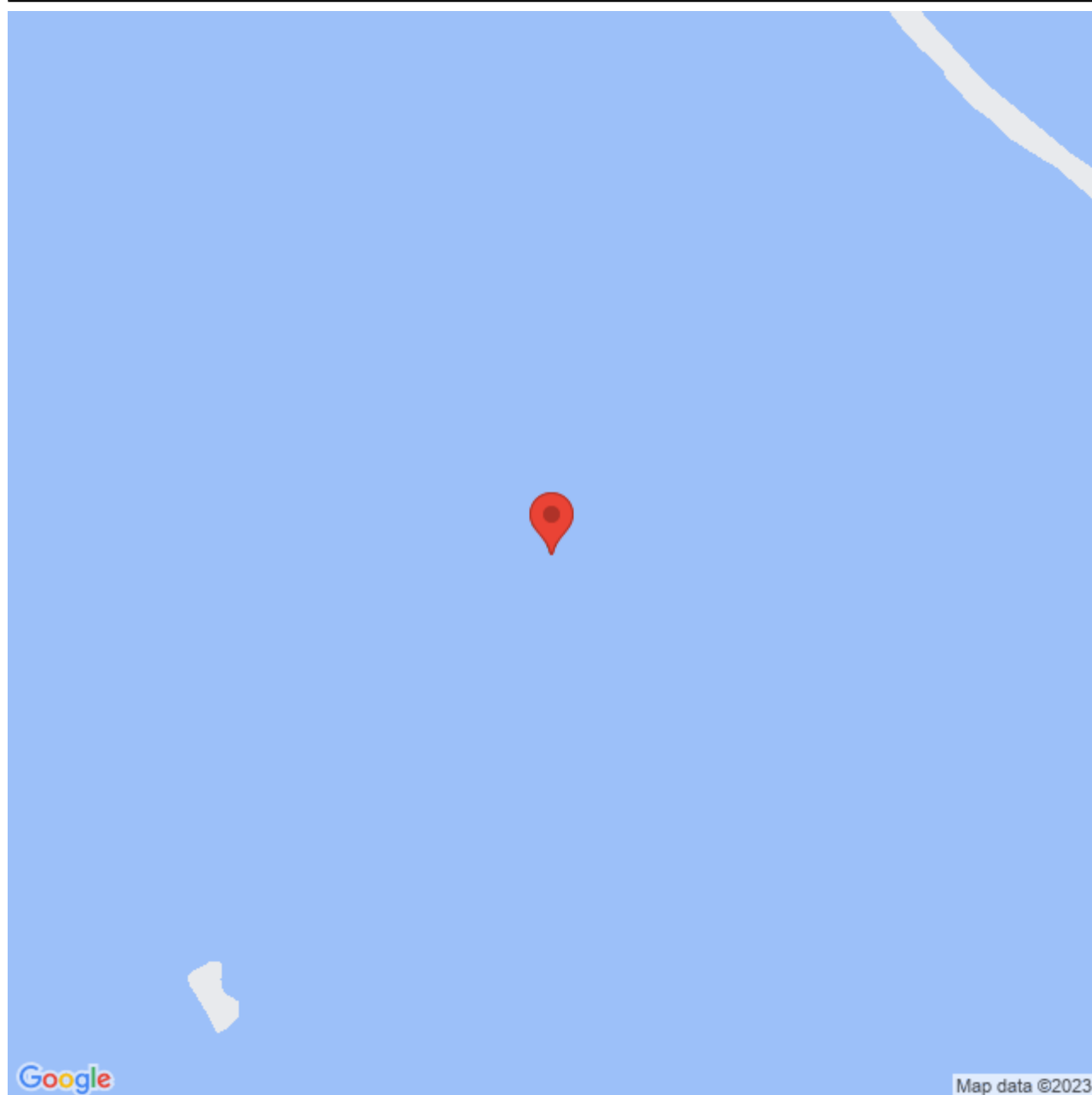
In the lagoon, on hard substrate.

Distribution

In French Polynesia: Tuamotu is.

Pacific Ocean: Australia, Palau, Vanuatu

Hooper, J.N.A. (2008). QM1829 *Chelonaplysilla delicata* In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Darwinella* sp (OTU QM4848) (OTU QM4848)**

Order
Dendroceratida

Family
Darwinellidae



External characters

thickly encrusting

Colour

vibrant yellow alive

Skeletal Characters

Oscules	sponge with most of the aquiferous system external to the body, large tubular semitransparent canals terminating in one or more oscules
Texture	soft
Surface_Ornamentation	highly corrugate, lumpy, with radiating surface canals prominent,
Ectosomal_Skeleton	fibrous, no specialised surface skeleton
Choanosomal_Skeleton	growing on a reticulate base of thin collagen; few thick heavy fibres with sand core, and highly collagenous choanosomal skeleton
Megascleres	Nil
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

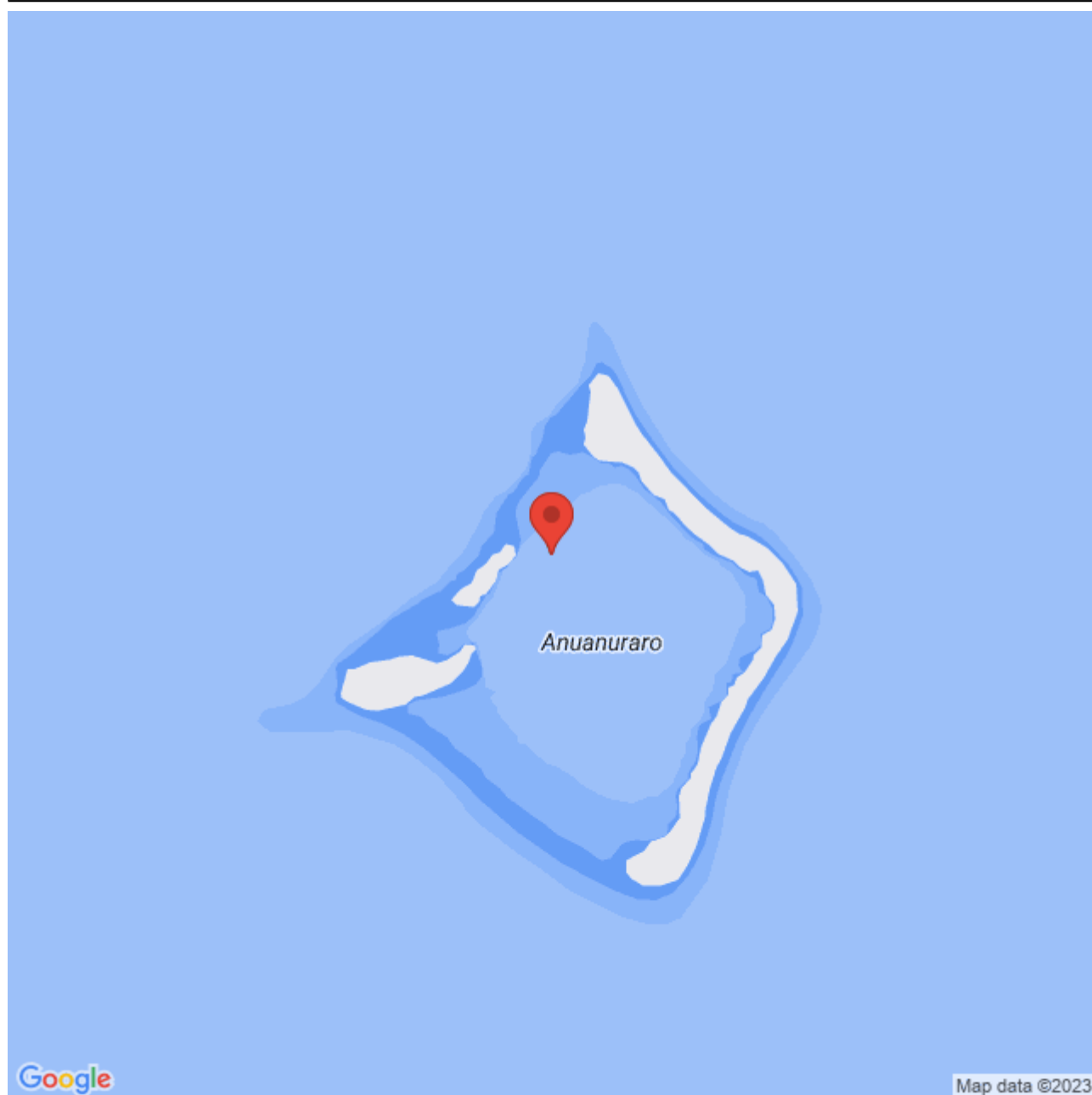
Distribution

In French Polynesia: Tuamotu is.

Ecology and habitat

On the outer reef slope, on hard substrate.

JNA Hooper (2014). QM4848 *Darwinella* sp (OTU QM4848) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Dendrilla* sp. (4907) (OTU QM4907)**

Order
Dendroceratida

Family
Darwinellidae



External characters

Encrusting, spiked.

Dimensions

Fill here

Colour

Orange

Skeletal Characters

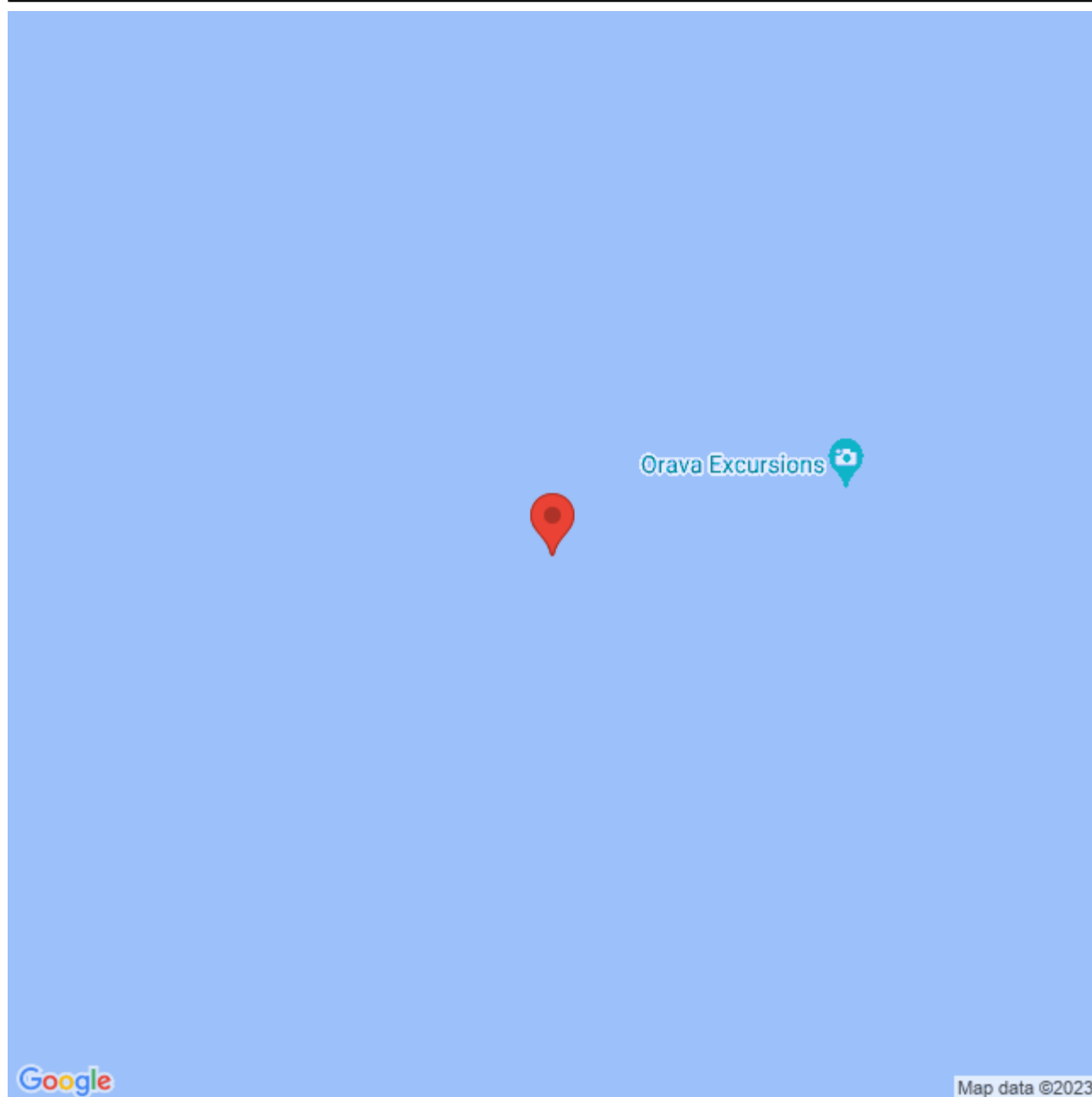
Fill here

Ecology and habitat

In the lagoon, on pinnacles.

Distribution

In French Polynesia: Tuamotu is.



Family: Dictyodendrillidae

Acanthodendrilla sp. (4923) (OTU QM4923)

Order
Dendroceratida

Family
Dictyodendrillidae



External characters

Small digitation

Dimensions

Around 5 cm height.

Colour

Olive green alive.

Skeletal Characters

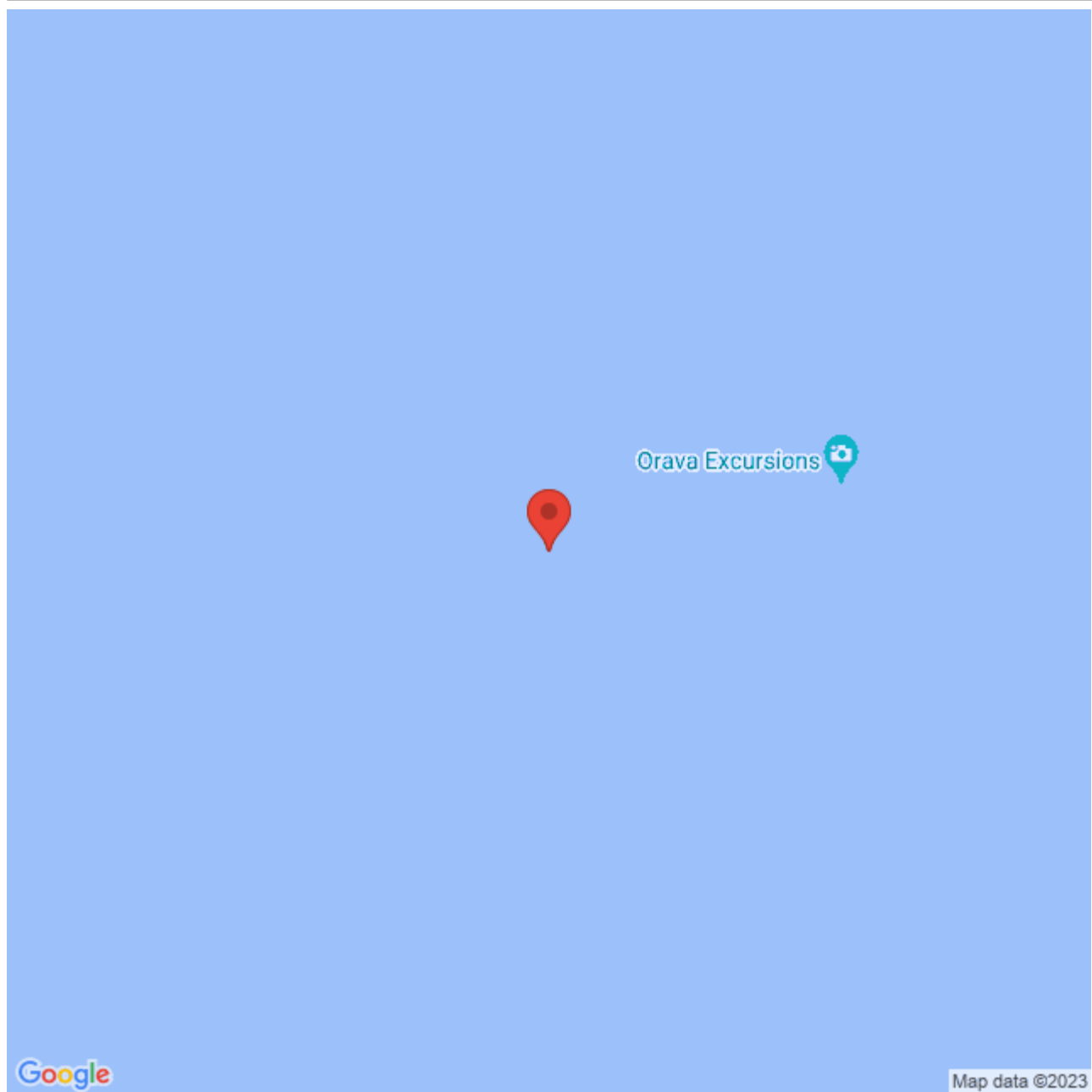
Fill here

Ecology and habitat

On the outer reef slope, on dead eroded corals.

Distribution

In French Polynesia: Tuamotu is.



Order: Desmacellida

Family: Desmacellidae

***Microtylostylifer* sp. (OTU QM0785) (OTU QM0785)**

Order
Desmacellida

Family
Desmacellidae



External characters

massive.

Colour

beige, covered with sediment, in ethanol.

Skeletal Characters

Oscules	not apparent in ethanol.
Texture	brittle, relatively fragile, easily broken.
Surface_Ornamentation	covered with sediment, specimen encrusted by unidentified haplosclerid.
Ectosomal_Skeleton	tangential layer of small mycalostyles; plumose tracts ascend to support ectosome.
Choanosomal_Skeleton	megascleres in thick tracts; semi-plumose reticulation; many spicules in dense, confused arrangement.
Megascleres	mycalostyles: 2 size classes.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

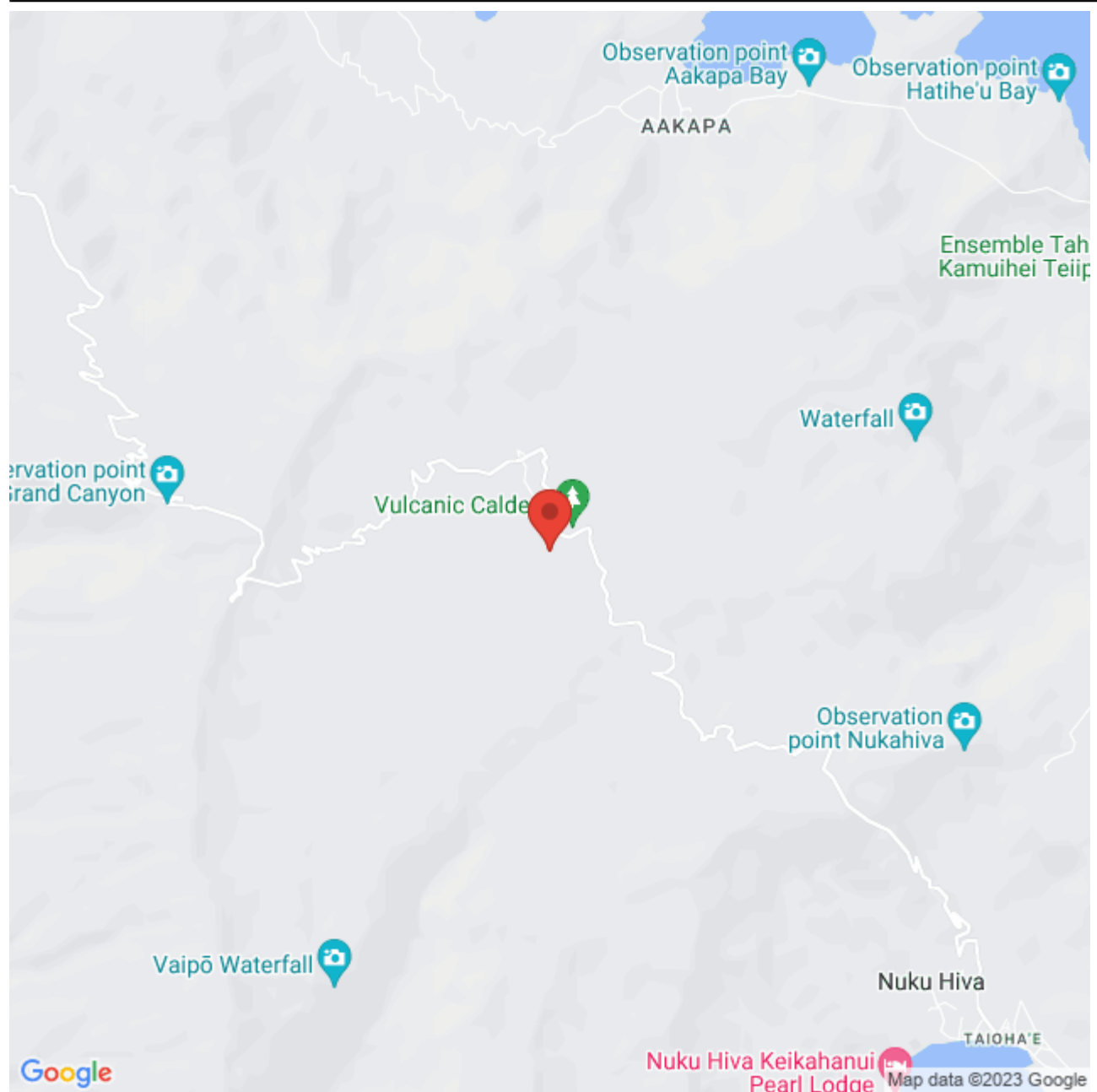
Distribution

In French Polynesia: Marquesas islands.

Ecology and habitat

In a bay, on sandy slope.

P Sutcliffe (2014). QM0785 *Microtylostylifer* sp. (OTU QM0785) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Order: Dictyoceratida

Family: Dysideidae

***Dysidea arenaria* (OTU QM0940)**

Order
Dictyoceratida

Family
Dysideidae



External characters

flabellate, digitate, non-anastomosing, branches flattened or tubular.

Colour

apparently variable, from pale blue, cream, white, pink, grey in life; mauve, pinkish mauve exterior, blue on bottom, pinkish beige, beige interior in ethanol.

Skeletal Characters

Oscules	single large oscules either flush with surface or slightly raised, on tubes, or in tubular growth forms, on apical ends of tubes
Texture	firm, not easily compressible.
Surface_Ornamentation	Callyspongia-like, microconulose, delicate tracery of sand/debris, opaque, membranous.
Ectosomal_Skeleton	surface uneven, some fibres push out surface and in places through to produce hispid appearance; crust of detritus particularly dense, incorporated into surface.
Choanosomal_Skeleton	fibrous; irregularly reticulate; fibres not well-developed, contain detritus, not cored fully, pith obvious, laminated; mesohyl collagen moderate, granular.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

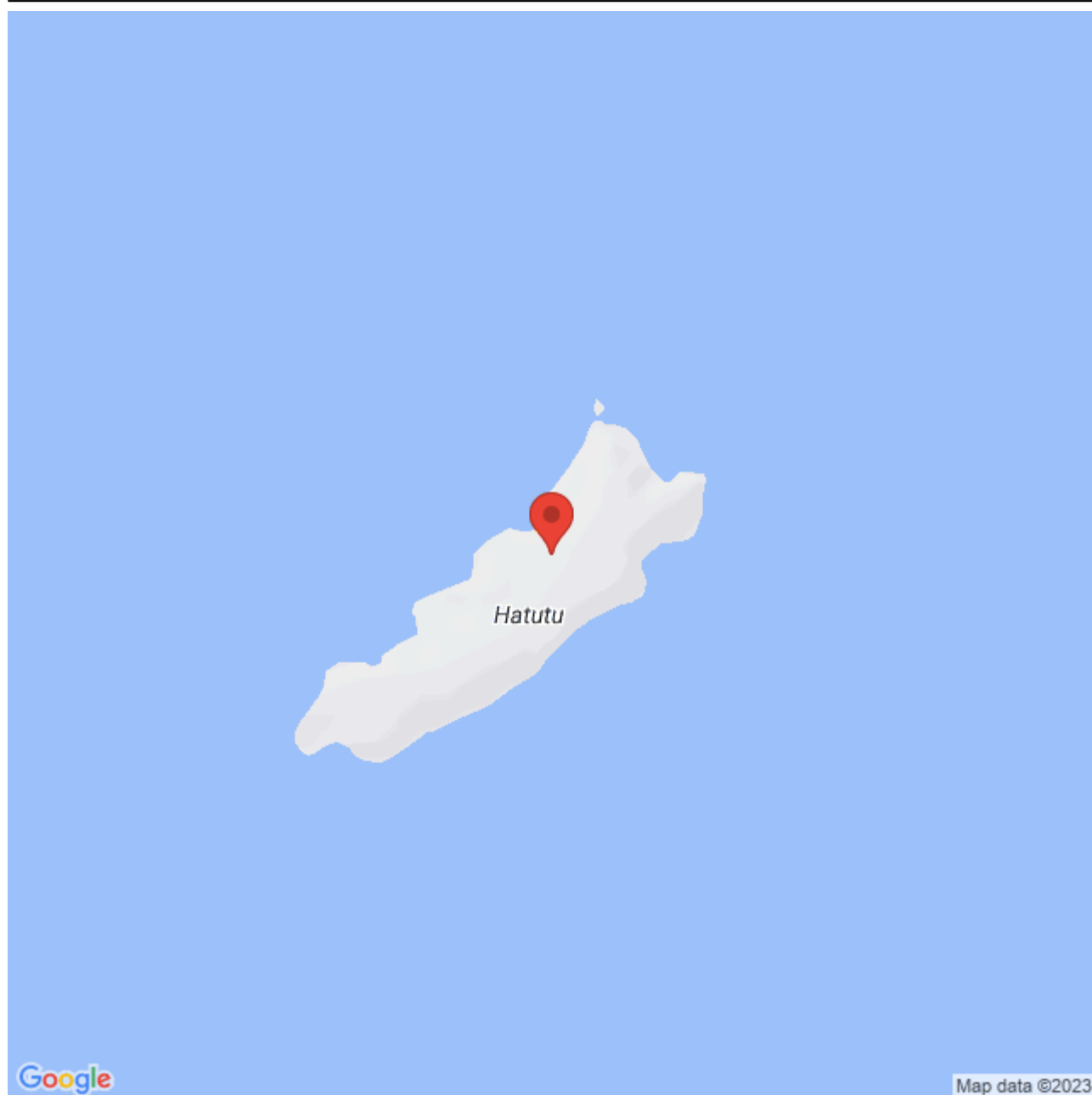
Ecology and habitat

Mostly in the lagoon, on sand or on detrital / sedimentary medium.

Distribution

In French Polynesia: Society, Marquesas, Tuamotu islands.

Hooper, J.N.A. (2009). QM0940 Dysidea arenaria In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Dysidea frondosa* (OTU QM1501)**

Order
Dictyoceratida

Family
Dysideidae



External characters

repent, multiple flattened lobate projections arising from a spreading base; dimensions: ~12 cm (l), ~6 cm (w), ~8 cm (h).

Colour

pink-purple (yR 5/2) in life; dark brown (yY-R 3/2) in ethanol.

Skeletal Characters

Oscules	large, ~3–6 mm (d), flush with surface, scattered.
Texture	soft, flexible, easily torn.
Surface_Ornamentation	low, irregularly distributed conules; conules ~1–1.5 mm (h), rounded or pointed tips, connected by sandy tracts running in plane of surface in some areas but not over whole surface; tracts white; irregular web-like appearance.
Ectosomal_Skeleton	~200–300 µm (depth); exhalant canal lacunae; dense superficial region of light collagen reinforcement, ~30–40 µm (depth).
Choanosomal_Skeleton	fibrous; all fibres cored; impossible to distinguish primary and secondary fibres by size or orientation except in immediate subsurface area; fibres large, ~120–400 µm (d), heavily cored, strongly stratified, form irregular network; negligible collagen, low mesohyl content, most volume occupied by choanocyte chambers and canals; chambers oval, eurypylous, ~50–80 µm (max. dimension); all areas contain numerous dark brown pigmented cells; interstitial debris absent.
Megascleres	nil.
Microscleres	nil.

Mudmap_Author	Queensland Museum, after Bergquist (1995)
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Ecology and habitat

Rim of the pass, on dead corals.



***Dysidea* sp (OTU QM4847) (OTU QM4847)**

Order
Dictyoceratida

Family
Dysideidae



External characters

small conical volcano or soft tubes on a common thick base, encrusting on a coral rubble and algae base

Colour

without pigment or greyish-bluish alive

Skeletal Characters

Oscules	single apical oscule
Texture	soft
Surface_Ornamentation	surface looks fibrous, looks like a typical Dysidea
Ectosomal_Skeleton	without sand cortex
Choanosomal_Skeleton	regular skeleton of thin cored primary fibres with a regular uncored secondary skeleton in between, minimal collagen
Megascleres	Nil
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

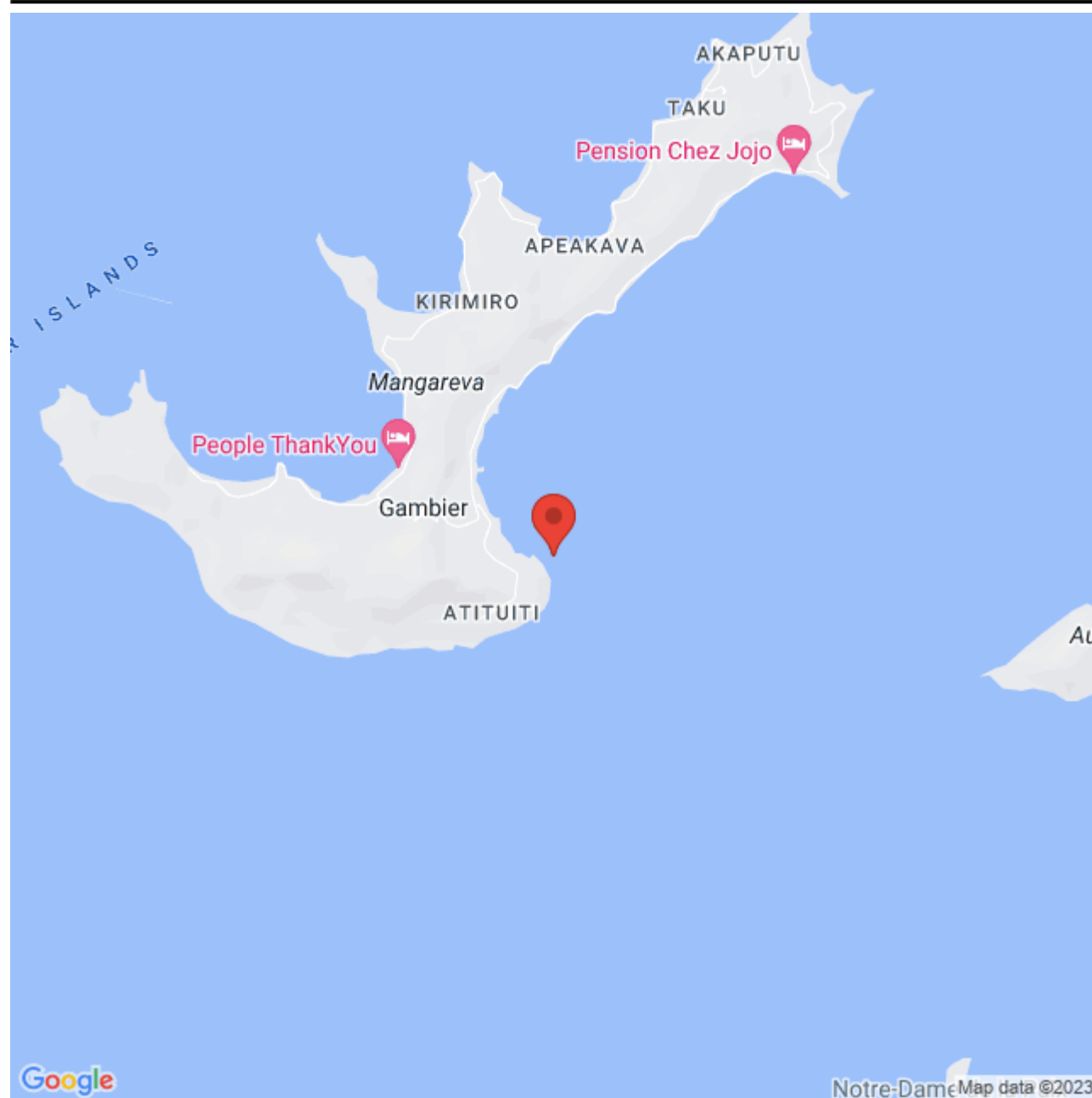
Distribution

In French Polynesia: Gambier archipelago

Ecology and habitat

In the lagoon.

Hooper, J.N.A. (2009). QM4847 Dysidea sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Dysidea* sp. (OTU QM0103) (OTU QM0103)**

Order
Dictyoceratida

Family
Dysideidae



External characters

massive, thickly encrusting, with or without digitate stalks arising from encrusting base.

Colour

pale greenish-blue in life.

Skeletal Characters

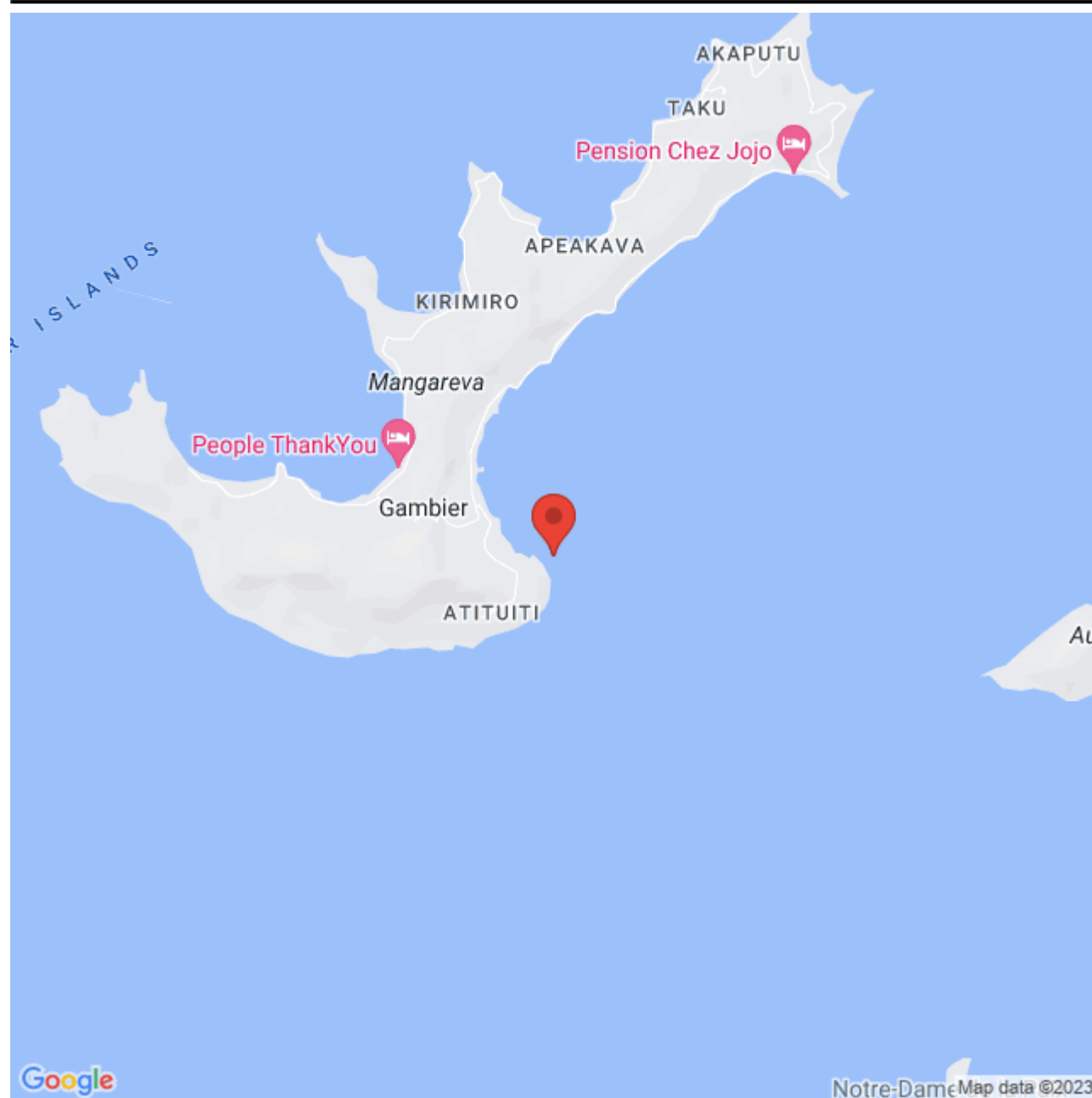
Oscules	small, scattered over surface.
Texture	compressible, spongy.
Surface_Ornamentation	minutely goose-fleshed; irregular ridges and conules.
Ectosomal_Skeleton	translucent, membranous, with discontinuous detrital layer; detritus contained within fibres.
Choanosomal_Skeleton	wide-meshed reticulation of fibres; fibres sparse, spongin, all partially cored with detritus, laminated, pith absent.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Gambier, Tuamotu, Australes, Society islands

Ecology and habitat

In the lagoon, on pinnacle and/or hard substrate.



***Dysidea* sp. (OTU QM0229) cf. *Dysidea arenaria*
Bergquist, 1965 (OTU QM0229)**

Order
Dictyoceratida

Family
Dysideidae



External characters

digitate, short, branching digits attached to common base, digits cylindrical.

Colour

yellow-orange, pinkish, bluish, pale purple, light brown, grey brown or grey in life; grey in ethanol.

Skeletal Characters

Oscules	small, scattered between conules.
Texture	soft, fragile, insubstantial.
Surface_Ornamentation	sharply conulose, conules interconnected by ridges.
Ectosomal_Skeleton	membranous, with layer of sandy fibres interconncted by opaque membrane.
Choanosomal_Skeleton	irregularly plumose-reticulate; fibres fully cored by sand, form ovoid meshes; collagen heavy, with sparse detritus, usually well -pigmented.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society, Tuamotu, Marquesas, Australes islands

Ecology and habitat

Mostly in the lagoon, on sediment, dead corals.

***Dysidea* sp. (OTU QM1214) (OTU QM1214)**

Order
Dictyoceratida

Family
Dysideidae



External characters

digitate, irregularly erect, anastomosing or bifurcate cylindrical digits, tapering to apex, multiple points of attachment.

Colour

sandy grey in life; grey-brown in ethanol.

Skeletal Characters

Oscules	small, few, scattered.
Texture	soft, fleshy.
Surface_Ornamentation	numerous, evenly distributed fleshy pointed conules interconnected by ridges.
Ectosomal_Skeleton	arenaceous.
Choanosomal_Skeleton	more-or-less reticulate, irregular; fibres fully cored by sand; mesohyl collagen moderately heavy.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Ecology and habitat

In the lagoon.



***Dysidea* sp. (OTU QM1584) (OTU QM1584)**

Order
Dictyoceratida

Family
Dysideidae



External characters

thickly encrusting, bulbous projections.

Colour

beige in life; beige in ethanol.

Skeletal Characters

Oscules	medium-sized, obvious, terminal on bulbs; raised lips obvious only in situ.
Texture	compressible, slightly brittle.
Surface_Ornamentation	microconulose, thin surface tissue, mottled appearance.
Ectosomal_Skeleton	indistinct from choanosome; sandy.
Choanosomal_Skeleton	primary and secondary tracts of fibres evenly reticulated; fibres fully cored by sand.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Ecology and habitat

In caves.



***Dysidea* sp. (OTU QM2102) (OTU QM2102)**

Order
Dictyoceratida

Family
Dysideidae



External characters

thickly encrusting, creeping branches.

Colour

royal blue with white colored ectosome draped across in life; light blue in ethanol.

Skeletal Characters

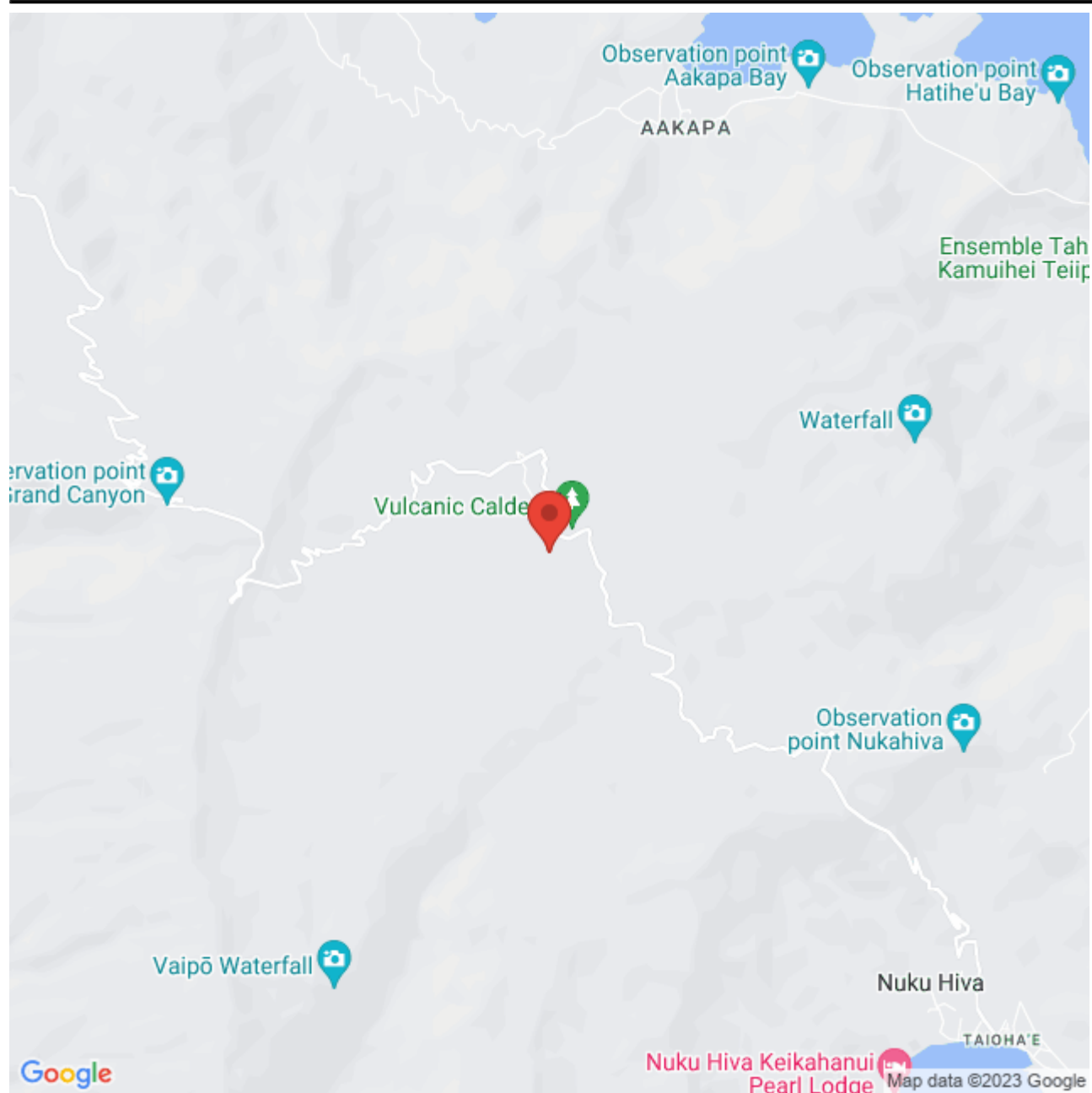
Oscules	few, scattered, with thin, transparent, raised lip.
Texture	soft, easily compressible.
Surface_Ornamentation	fibres protude through surface producing conulose surface; transparent ectosome draped between fibres.
Ectosomal_Skeleton	fibres cored with sand and foreign spicules, parallel to surface, occasional projections which protrude through surface.
Choanosomal_Skeleton	fibrous; reticulated; fibres cored with sand and foreign spicules; collagen abundant; spicules and sand throughout.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

Rocky slope.



***Dysidea* sp. (OTU QM2328) (OTU QM2328)**

Order
Dictyoceratida

Family
Dysideidae



External characters

thin plates.

Colour

grey in life; beige in ethanol.

Skeletal Characters

Oscules	not obvious.
Texture	soft, compressible, fibrous, easily torn.
Surface_Ornamentation	finely conulose, opaque, membranous.
Ectosomal_Skeleton	membranous; little differentiation from choanosome; diatoms packed into top layer of ectosome.
Choanosomal_Skeleton	fibrous; fibres relatively sparse, pithed, laminated, cored with detritus and foreign spicules; mesohyl collagen very poor, homogeneous.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tahiti

Ecology and habitat

Enter of the pass.

Hooper, J.N.A. (2014). QM2328 Dysidea sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Dysidea* sp. (OTU QM2669) (OTU QM2669)**

Order
Dictyoceratida

Family
Dysideidae



External characters

encrusting, 1–2 mm thick, slightly foliose-lobate.

Colour

grey-blue in life; chocolate brown exterior, beige fibres protruding through surface in ethanol.

Skeletal Characters

Oscules	not visible.
Texture	very soft, compressible, floppy, fibrous, mucousy.
Surface_Ornamentation	regularly conulose, small conules interconnected by ridges.
Ectosomal_Skeleton	membranous, pushed up into conules by chonosomal fibres.
Choanosomal_Skeleton	fibrous; irregular reticulation of fibres; fibres partially cored by detritus and foreign spicule material; mesohyl collagen dark, obscures fibres.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	K Hall

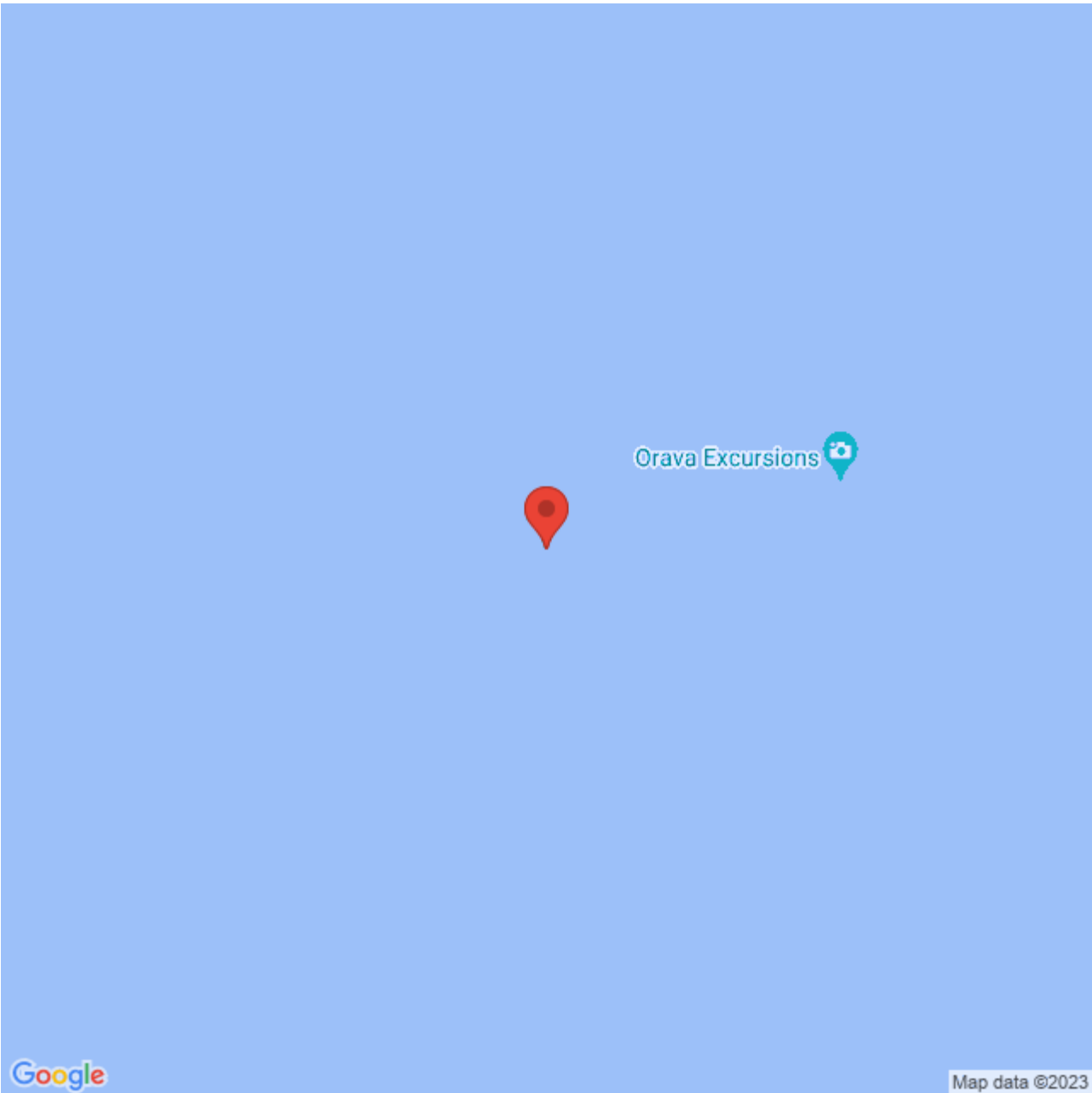
Distribution

In French Polynesia: Society, Tuamotu, Australes islands

Ecology and habitat

Outer rim of the pass, outer reef slope, encrusted in the sediment or coral sand.

P. Sutcliffe (2009). QM2669 Dysidea sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Dysidea* sp. (OTU QM2975) (OTU QM2975)**

Order
Dictyoceratida

Family
Dysideidae



External characters

thickly encrusting.

Colour

red in life; brown in ethanol.

Skeletal Characters

Oscules	no observations.
Texture	soft, compressible (despite high sediment load throughout sponge).
Surface_Ornamentation	irregular to conical shaped "domes" (conules) with sediment incorporated in tips; fibrous nature visible under dissecting microscope.
Ectosomal_Skeleton	collagenous, slightly arenaceous
Choanosomal_Skeleton	fibrous; fibres cored with detritus; mesohyl collagen granular, homogeneous, with occasional sediment.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

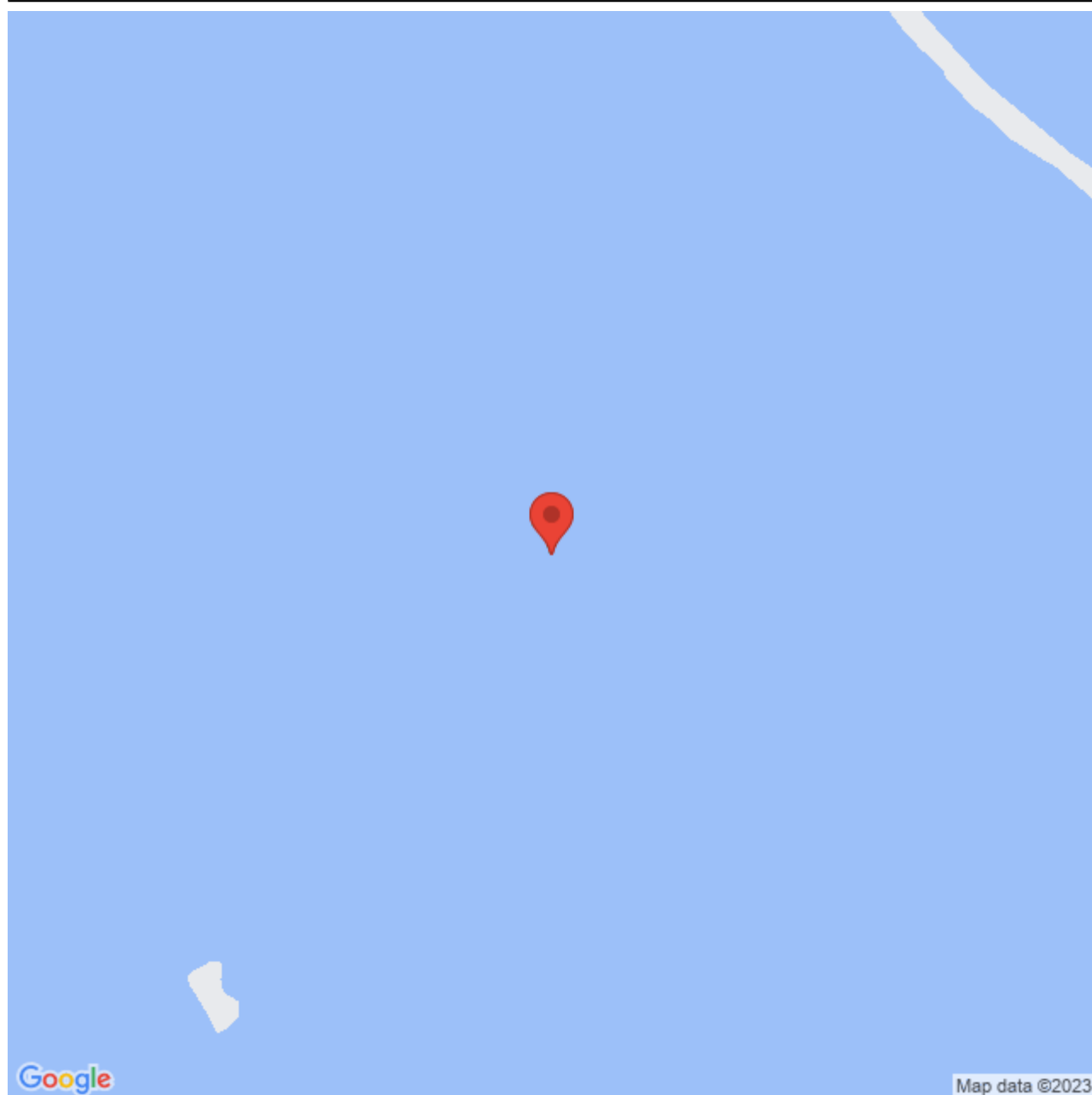
Distribution

In French Polynesia: Tuamotu islands.

Ecology and habitat

In the lagoon, on hard substrate.

Hooper, J.N.A. (2009). QM2975 Dysidea sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Dysidea* sp. (OTU QM4759) (OTU QM4759)**

Order
Dictyoceratida

Family
Dysideidae



External characters

fragment; massive, amorphous, deep surface crevices.

Colour

blue-grey in life; interior grey to cream, exterior darker in ethanol.

Skeletal Characters

Oscules	few, sparse, large, rounded, 6–7 mm (d), between ridges.
Texture	soft, tears, compressible, resilient.
Surface_Ornamentation	regularly shaggy, highly conulose, fibres protrude through tips of conules; conules 3–4 mm (h), spaced ~6 mm apart.
Ectosomal_Skeleton	distinguished from choanosome; conules raised by large fibres which protrude through ectosome; large amount of detritus incorporated at surface; ectosome pigmented.
Choanosomal_Skeleton	fibrous; fibres thick, not laminated, very strongly cored with sand, obscuring detail; mesohyl incorporates sand grains and pigment in granules.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	Kathryn Hall
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Society, Australes islands.

Ecology and habitat

In the lagoon, in caves, in sandy/sedimentary environment.

Kathryn Hall (2012). QM4759 Dysidea sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Dysidea* sp. (OTU QM4866) (OTU QM4866)**

Order
Dictyoceratida

Family
Dysideidae



External characters

elongate cylindrical digitate growth form with multiple points of attachment to the substrate, and incorporating rubble, suggesting it is found on rubble substrates rather than reef

Colour

pale grey brown on deck

Skeletal Characters

Oscules	very small, collapses in air
Texture	harsh, compressible, soft
Surface_Ornamentation	surface prominently conulose with sharp conules and filamentous tips
Ectosomal_Skeleton	ectosome with an irregular light spatter of detritus but not equivalent to a crust
Choanosomal_Skeleton	choanosomal skeleton with some large spongin fibres, wide meshes and vaguely reticulate, with partial core of spicule fragments (but not all fibres and occupying only a small part of their diameter), and the light mesohyl also containing abundant foreign spicules of just about every variety (a sediment trap)
Megascleres	Nil
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tahiti

Ecology and habitat

In Caves.

Hooper, J.N.A. (2014). QM4866 Dysidea sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Euryspongia delicatula* (OTU QM1833)**

Order
Dictyoceratida

Family
Dysideidae



External characters

massive, lobate, subspherical.

Colour

pinkish to purple in life; beige to dark purple on deck; beige in ethanol.

Skeletal Characters

Oscules	several, small and medium-sized, flush with surface, may occur in linear arrangement.
Texture	soft, compressible.
Surface_Ornamentation	translucent, membranous; uneven, pointed conulose, with distinct sand tracery (cobweb-like) on surface interconnecting adjacent conules.
Ectosomal_Skeleton	membranous, with thick, striated collagen; detritus scattered sparsely over surface.
Choanosomal_Skeleton	fibrous; irregular reticulation of fibres; all fibres laminated, pithed; primary fibres widely spaced, fully cored by sand grains, connected by secondary fibres; secondary fibres fasciculate, clear of detritus; mesohyl collagen moderately light, slightly granular, stringy; sometimes primary fibres reduced and skeleton dominated by secondary fibres.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

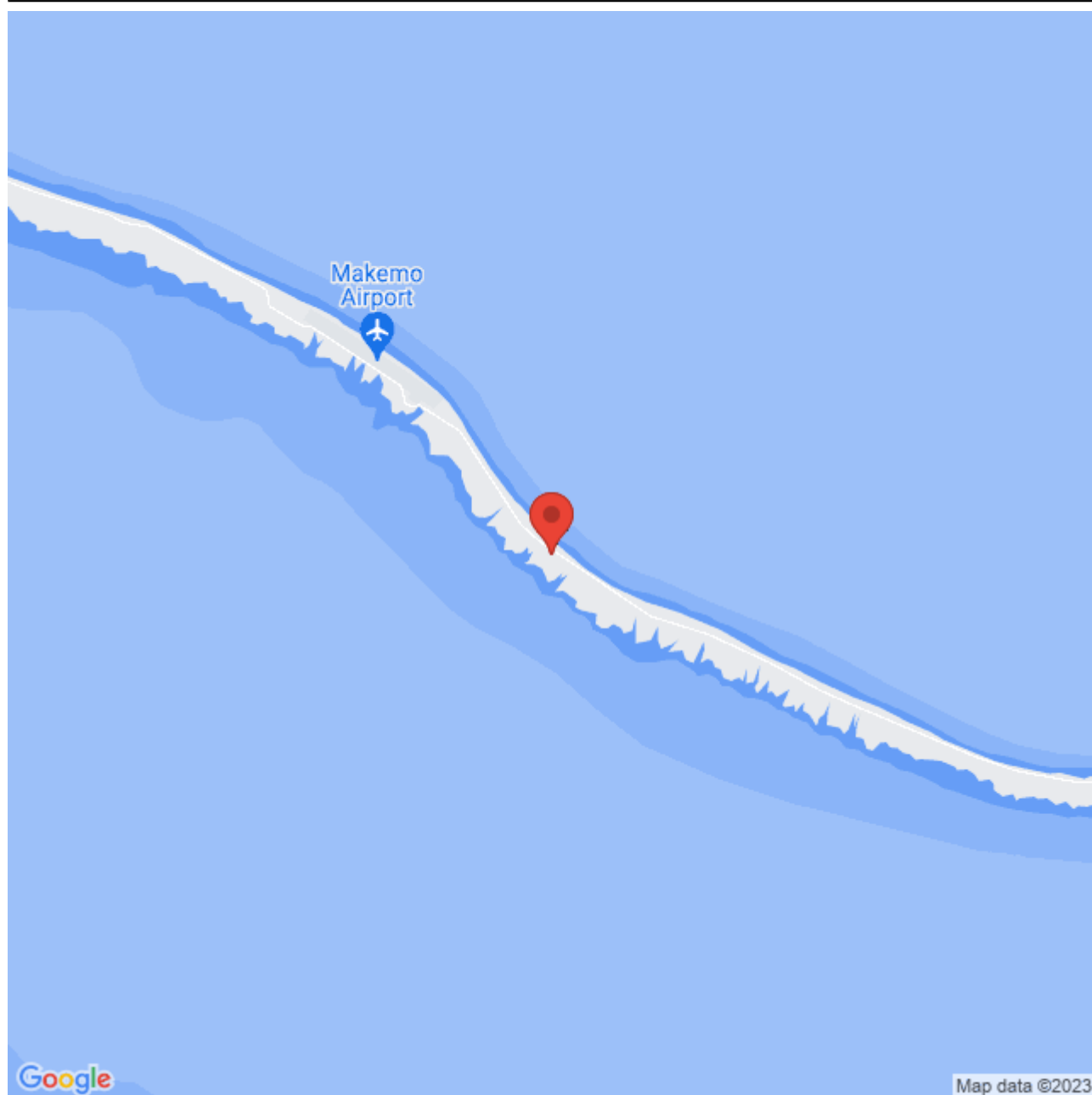
Ecology and habitat

In the lagoon, on pinnacles.

Distribution

In French Polynesia: Tuamotu islands

Hooper, J.N.A. (2009). QM1833 *Euryspongia delicatula* In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Euryspongia* sp. (OTU QM4409) (OTU QM4409)**

Order
Dictyoceratida

Family
Dysideidae



External characters

lobate, massive, cavernous.

Colour

white in life; beige in ethanol.

Skeletal Characters

Oscules	numerous, apical; appear as deep cavernous areas which differ in gross morphology from remainder of surface by absence of thin membranous film.
Texture	soft, compressible, resilient.
Surface_Ornamentation	translucent, membranous film connecting mostly cavernous sponge.
Ectosomal_Skeleton	membranous; no spicule skeleton.
Choanosomal_Skeleton	fibrous; dense reticulation of primary and secondary fibres; primary fibres distinctively cored with foreign spicules, ascend to tips of conules; secondary fibres laminated, uncored, form dense reticulation; some foreign detritus scattered throughout, but not heavily.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	K Hall

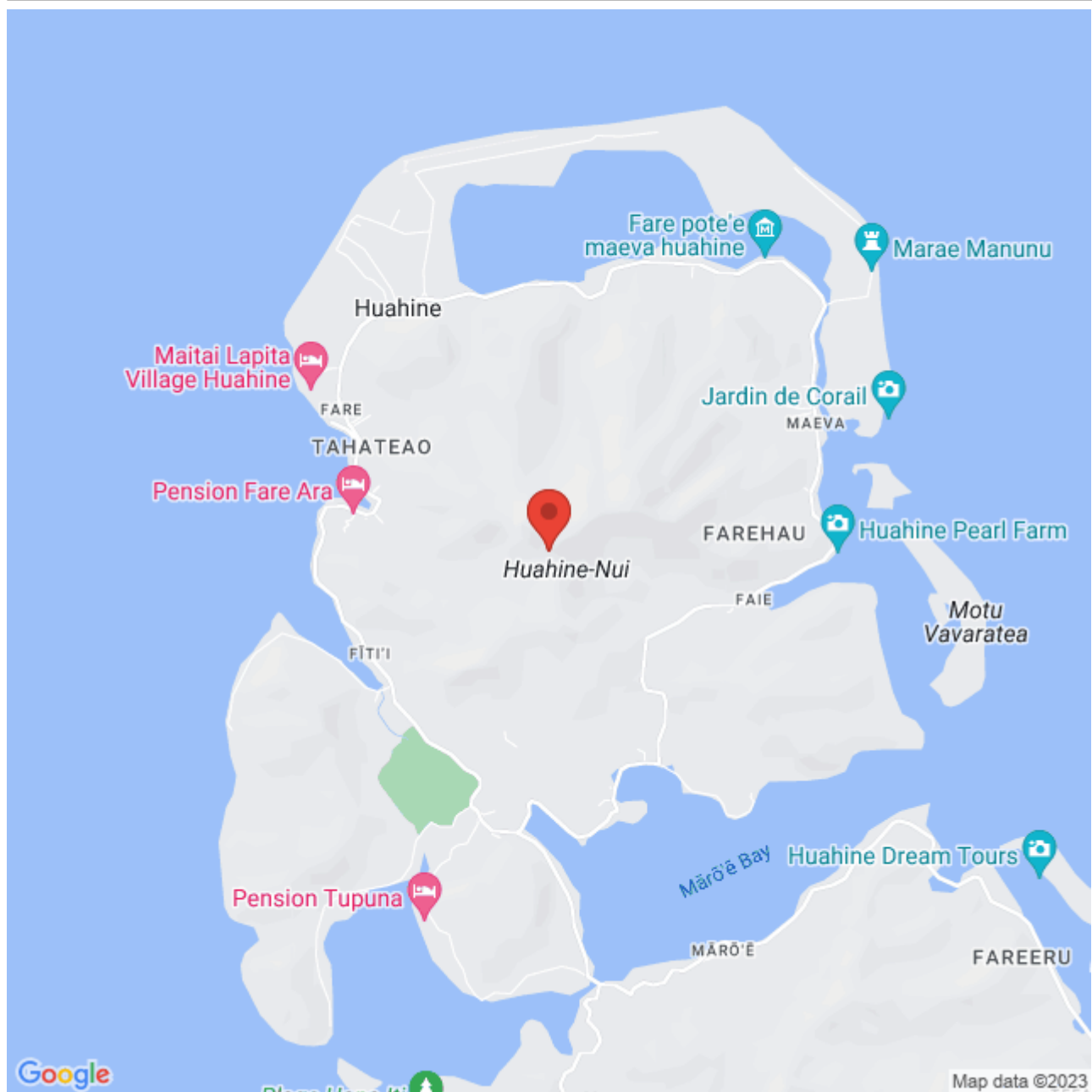
Distribution

In French Polynesia: Society, windward islands.

Ecology and habitat

Outer reef slope near the rim of the pass, or in the lagoon on the pinnacles.

P. Sutcliffe (2009). QM4409 Euryspongia sp. In: Hall, K.A. & Hooper, J.N.A. (2014)
SpongeMaps: an online community for taxonomy and identification of sponges. (Available at
<http://www.spongemaps.org>).



***Lamellodysidea herbacea* (Keller, 1889) (OTU QM0003)**

Order
Dictyoceratida

Family
Dysideidae



External characters

Ranging from thinly encrusting following contours of the substrate, sometimes with surface convoluted, often with erect flat lobate lamellae, or sometimes with bifurcate digitate projections, both up to several cm long and extending a long distance from surface. Margins relatively thick, not crenulated.

Dimensions

Fill here

Colour

Variable in situ, possibly depending on growth form and light regime, ranging from pale bluish grey, mauve grey, pale mauve, pale green, yellowish green, light brown to orange brown. Brownish grey in ethanol.

Skeletal Characters

Oscules	Oscules subterminal and on later sides of digits, 2-5mm diameter, slightly raised above the surface.
Texture	Soft, encrusting plates peel off the substrate easily, whereas digits and lobes more rubbery.
Surface ornamentation	Thinly encrusting plates with 'goose-flesh' microconules, with the subdermal aquiferous canals visible below the surface converging on oscules. Erect lobate and digitate growth forms evenly goose flesh, often fused with adjacent digits. No obvious ridges or grooves although microconules are sometimes aligned in rows to produce a slightly striated appearance. Points of digits usually rounded, and digits generally flattened laterally. Microconules up to 2mm high, completely covering all surfaces although less abundant on the encrusting base than on digits.

Ectosomal skeleton	Thick arenaceous layer on surface, with fibres approaching the surface (150-(341.6)-500um thick). Exopinacoderm thick, with spherical cells (4-(5.6)-8um thick) in 2- 3 layers underlying the flattened pinacocytes, 11-(10.3)-16um thick, below which is a smooth collagenous region containing abundant symbiotic bacteria scattered evenly. Ectosomal region 26-(34.6)-41um thick. Subectosomal region cavernous, with well developed subsurface aquiferous system clearly evident. Ascending fibres protrude through ectosome, with areas between conules relatively free of detritus.
Choanosomal skeleton	No distinction between primary and secondary spongin fibres, forming very regular reticulation. Fibre diameter approximately 50-(78.8)-100um, with round to rectangular fibre meshes, close-meshed reticulation 130-(188.3)-250um diameter. All fibres are fully cored with sand grains and debris. Fibres only lightly invested with collagen, apparently lacking striated spongin or fibre laminations. Mesohyl moderately light with little detritus outside fibres.

Ecology and habitat

Mostly in the lagoon, on the inner reef barrier slope or on the pinnacles.

Distribution

In French Polynesia: Society islands

Hooper, J.N.A. (2012). QM0003 Lamellodysidea herbacea In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Lamellodysidea* sp. (4895) (OTU QM4895)**

Order
Dictyoceratida

Family
Dysideidae



External characters

Encrusting the substrate.

Dimensions

Fill here

Colour

Pinkish

Skeletal Characters

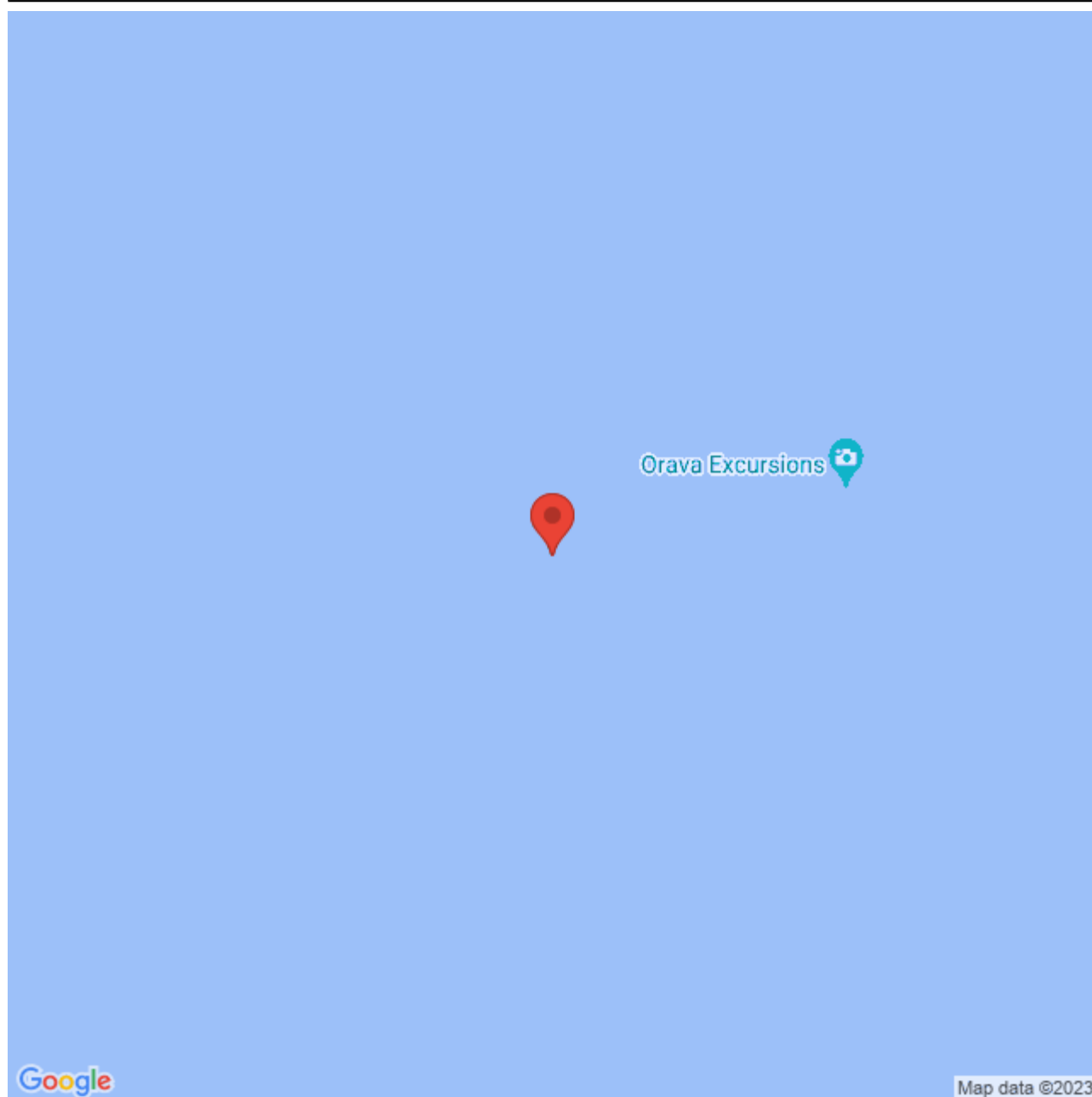
Fill here

Ecology and habitat

In the lagoon, on the pinnacles.

Distribution

In French polynesia: Tahiti and Tuamotu islands.



***Lamellodysidea* sp. (4896) (OTU QM4896)**

Order
Dictyoceratida

Family
Dysideidae



External characters

Sample form: encrusting fine
Surface appearance: Smooth
Consistency: Soft

Dimensions

Fill here

Colour

Orange in life.

Skeletal Characters

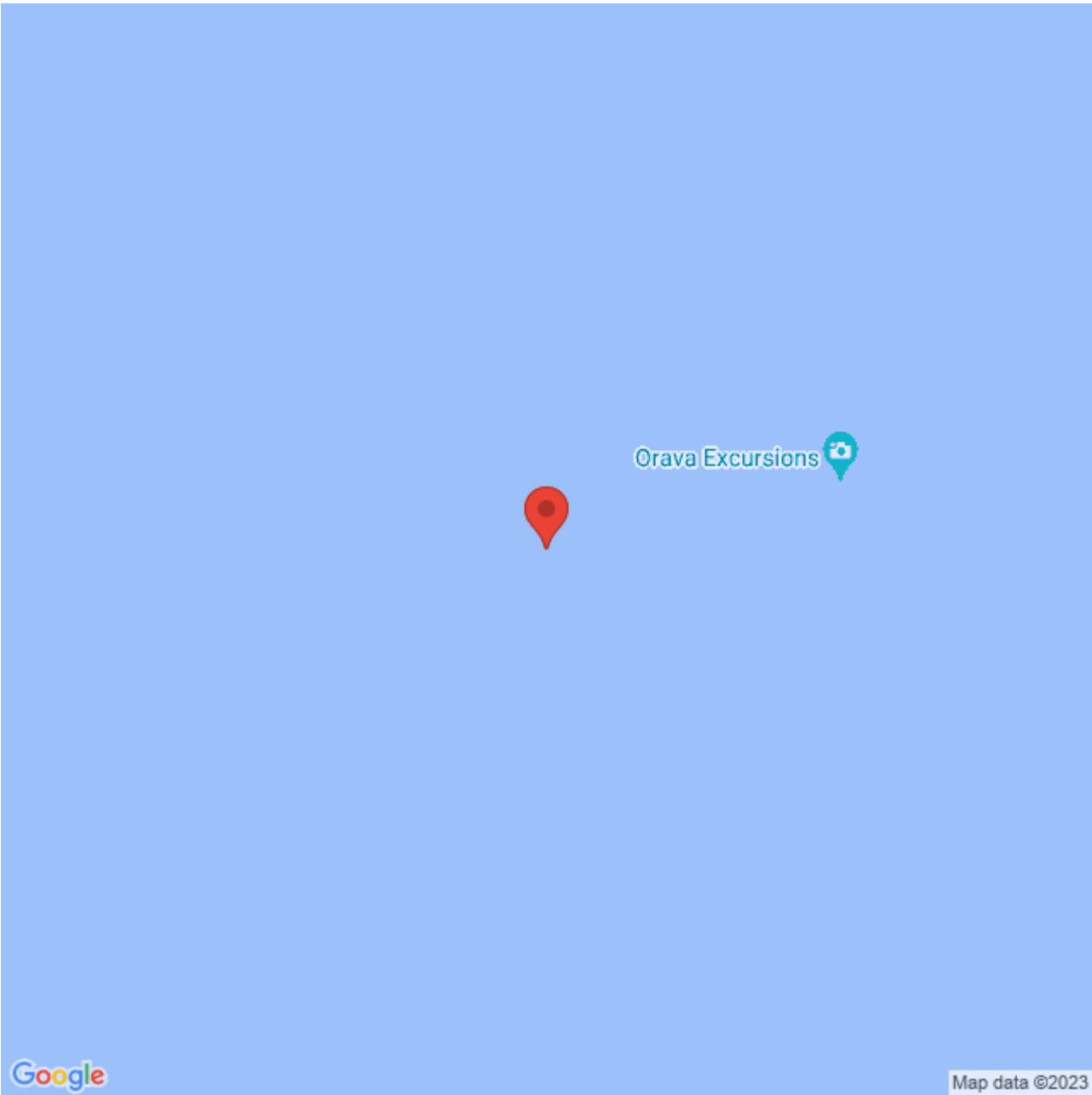
Fill here

Ecology and habitat

Outer reef slope, and in the lagoon on the pinnacles.

Distribution

In French Polynesia: Tuamotu islands



***Lamellodysidea* sp. (OTU QM2538) cf.
Lamellodysidea herbacea (Keller, 1889) (OTU
QM2538)**

Order
Dictyoceratida

Family
Dysideidae



External characters

thinly encrusting.

Colour

grey in life.

Skeletal Characters

Oscules	raised on small fistules, enclosed by thin transparent membrane.
Texture	firm, rubbery, difficult to tear.
Surface_Ornamentation	only slightly sculptured, ridges run perpendicular to edge, somewhat bumpy.
Ectosomal_Skeleton	fibres run along surface, little coring of fibres.
Choanosomal_Skeleton	fibrous; all fibres laminated; primary fibres partially cored by sand and spicules.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Ecology and habitat

In the lagoon, rim of the pass, and on the outer reef slope.

Hooper, J.N.A. (2009). QM2538 Lamellodysidea sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).

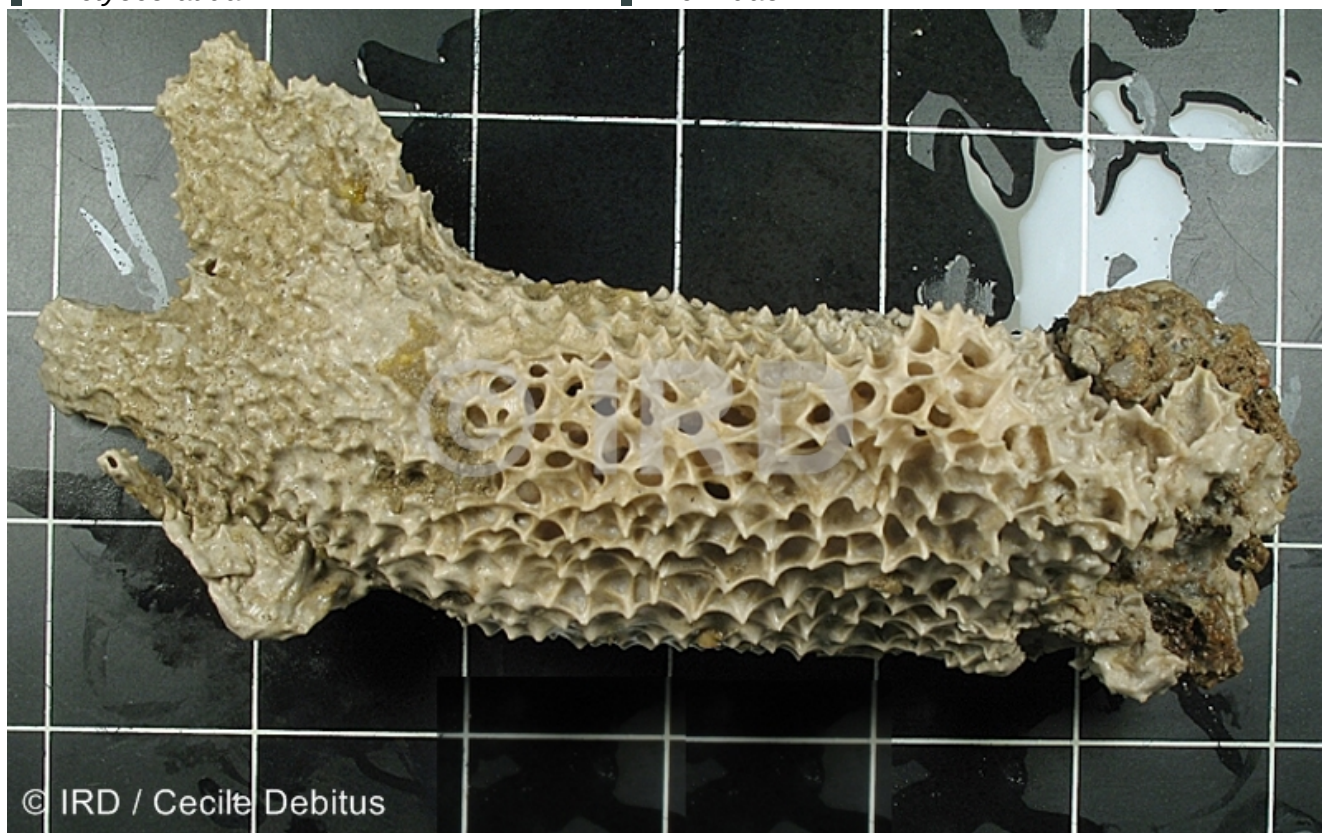


Family: Irciniidae

***Psammocinia* sp. (OTU QM0704) (OTU QM0704)**

Order
Dictyoceratida

Family
Irciniidae



© IRD / Cécile Debitus

External characters

bulbous; similar to *Psammocinia bulbosa* Bergquist, 1995.

Colour

white exterior, yellow interior (in ethanol).

Skeletal Characters

Oscules	large thin fistules, partially closed terminally; similar to those of <i>Psammocinia bulbosa</i> Bergquist, 1995, but not as open; dark, slightly depressed.
Texture	firm, incompressible.
Surface_Ornamentation	uniformly lumpy, not conulose.
Ectosomal_Skeleton	very thick crust of sand.
Choanosomal_Skeleton	fibrous; fibres large; abundant sand throughout; collagen filaments dense, abundant.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tahiti

Ecology and habitat

In caves.

Hooper, J.N.A. (2009). QM0704 Psammocinia sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Psammocinia* sp. (OTU QM4758) (OTU QM4758)**

Order
Dictyoceratida

Family
Irciniidae



External characters

fragment; massive, amorphous.

Colour

pinkish-beige in life; interior pale, exterior beige to grey in ethanol; darker colour on top of chimney-like protuberances.

Skeletal Characters

Oscules	large, ovoid, between ridges, ~4 mm (d).
Texture	tough, dense, compressible, resilient, resists tearing.
Surface_Ornamentation	rugose, ridges prominent, smooth to sandpapery, incorporates some detritus.
Ectosomal_Skeleton	not conspicuously distinguished from choanosome; conules raised by large fibres which protrude though ectosome; large amount of detritus incorporated at surface.
Choanosomal_Skeleton	fibrous; fibres numerous, very strongly laminated, thick, clear, not cored; mesohyl incorporates large amounts of large sand grains and other detritus.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	Kathryn Hall
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Ecology and habitat

Outer reef slope, near the rim of the pass.

K. Hall (2012). QM4758 *Psammocinia* sp. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Spongiidae

***Coscinoderma* sp. (OTU QM4176) (OTU QM4176)**

Order
Dictyoceratida

Family
Spongiidae



External characters

massive.

Colour

beige in ethanol.

Skeletal Characters

Oscules	small, barely visible, scarce.
Texture	firm, barely compressible, tough.
Surface_Ornamentation	uneven, spiny, fibrous.
Ectosomal_Skeleton	very thin arenaceous layer.
Choanosomal_Skeleton	fibrous; confused reticulation dominated by secondary fibres; secondary fibres clear; mesohyl light, even.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society archipelago.

Ecology and habitat

In the lagoon, on hard substrate.

Queensland Museum (2014). QM4176 *Coscinoderma* sp. (OTU QM4176) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Hyattella* sp. (OTU QM4865) (OTU QM4865)**

Order
Dictyoceratida

Family
Spongiidae



External characters

bulbous, subspherical, with several large fistules on all sides of the bulb suggesting it is probably erect, partially burrowing

Colour

brown on deck

Skeletal Characters

Oscules	large, surmounted on top of fistules
Texture	firm, compressible
Surface_Ornamentation	surface fistulose otherwise smooth, shiny, appears mucousy
Ectosomal_Skeleton	ectosome with a light but distinct cortex composed of foreign spicules and sand grains
Choanosomal_Skeleton	choanosome with a primary and secondary spongin fibre system, with primary fibres cored by spicules and detritus, and secondary fibres completely clear; fibres do not appear to have any pith or lamellations; mesohyl light and with a light to moderate scattering of isolated spicules of all varieties (sediment trap)
Megascleres	Nil
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tahiti

Ecology and habitat

In caves.

Possible Confusions

CO1 sequence suggests this is an *Ircinia*, but there are no collagen filaments in the mesohyl so not an *Ircinia sensu stricto*. Clearly a Spongiidae and closest to *Hyattella* based on morphology at least.

Hooper, J.N.A. (2014). QM4865 *Hyattella* sp. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Leiosella* sp. (4897) (OTU QM4897)**

Order
Dictyoceratida

Family
Spongiidae



External characters

Encrusting, unformed.

Surface appearance: Bristling
Consistency: firm

Dimensions

Fill here

Colour

In situ color: Gray
ex situ color: Grayish

Skeletal Characters

Fill here

Ecology and habitat

Enter of the pass, on the coral reef.

Distribution

In French Polynesia: Tahiti



***Rhopaloeides odorabile* (OTU QM0262)**

Order
Dictyoceratida

Family
Spongiidae



External characters

irregular, massive or cylindrical; top removed from larger specimens.

Colour

greyish-beige or dark olive/green in life; brown exterior, light brown interior in ethanol.

Skeletal Characters

Oscules	several, moderately-sized, scattered over surface.
Texture	firm, compressible.
Surface_Ornamentation	conulose, membranous between conules, or hispid; conules broad, multiple.
Ectosomal_Skeleton	scattering of foreign spicules on surface membrane; membrane penetrated by fasciculated choanosomal fibres.
Choanosomal_Skeleton	fibrous; regular reticulation of primary and secondary fibres, skeleton composition dominated by secondary fibres, or skeleton as anastomosing fibre network with reduced primary fibres; primary fibres sometimes cored by spicule detritus, particularly near surface; secondary fibres clear, slightly laminated, no pith.
Megascleres	nil.
Microscleres	nil.
Mudmap_Editor	K Hall

Ecology and habitat

On the costal slope, or on the outer reef slope.

Distribution

In French Polynesia: Australes archipelago.

Queensland Museum (2009). QM0262 *Rhopaloeides odorabile* In: Hall, K.A. & Hooper, J.N.A.
(2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available
at <http://www.spongemaps.org>).



***Rhopaloeides* sp. (OTU QM2883) (OTU QM2883)**

Order
Dictyoceratida

Family
Spongiidae



External characters

massive.

Colour

pale orange in life; dark grey in ethanol; stains ethanol maroon.

Skeletal Characters

Oscules	several, scattered, with raised lip; some at apex of chimney.
Texture	firm, easily compressible.
Surface_Ornamentation	conulose, opaque, pigmented.
Ectosomal_Skeleton	fibrous; reticulation of fibres; ascending fibres occasionally cored with debris; fibres support surface conules, sometimes protrude through surface.
Choanosomal_Skeleton	fibrous; reticulation of fibres; fibres generally clear, ascending fibres occasionally cored with debris; collagen abundant.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	P Sutcliffe/M Schlacher-Hoenlinger
Mudmap_Editor	K Hall

Distribution

In French Polynesia: in Tahiti

Ecology and habitat

On the outer reef slope

P Sutcliffe/M Schlacher-Hoenlinger (2014). QM2883 Rhopaloeides sp. (OTU QM2883) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Spongia (heterofibria) sp. (4887) (OTU QM4887)

Order
Dictyoceratida

Family
Spongiidae



External characters

Thinly encrusting.

Surface appearance: Cavernous

Consistency: Soft

Dimensions

Fill here

Colour

Red/orange.

Skeletal Characters

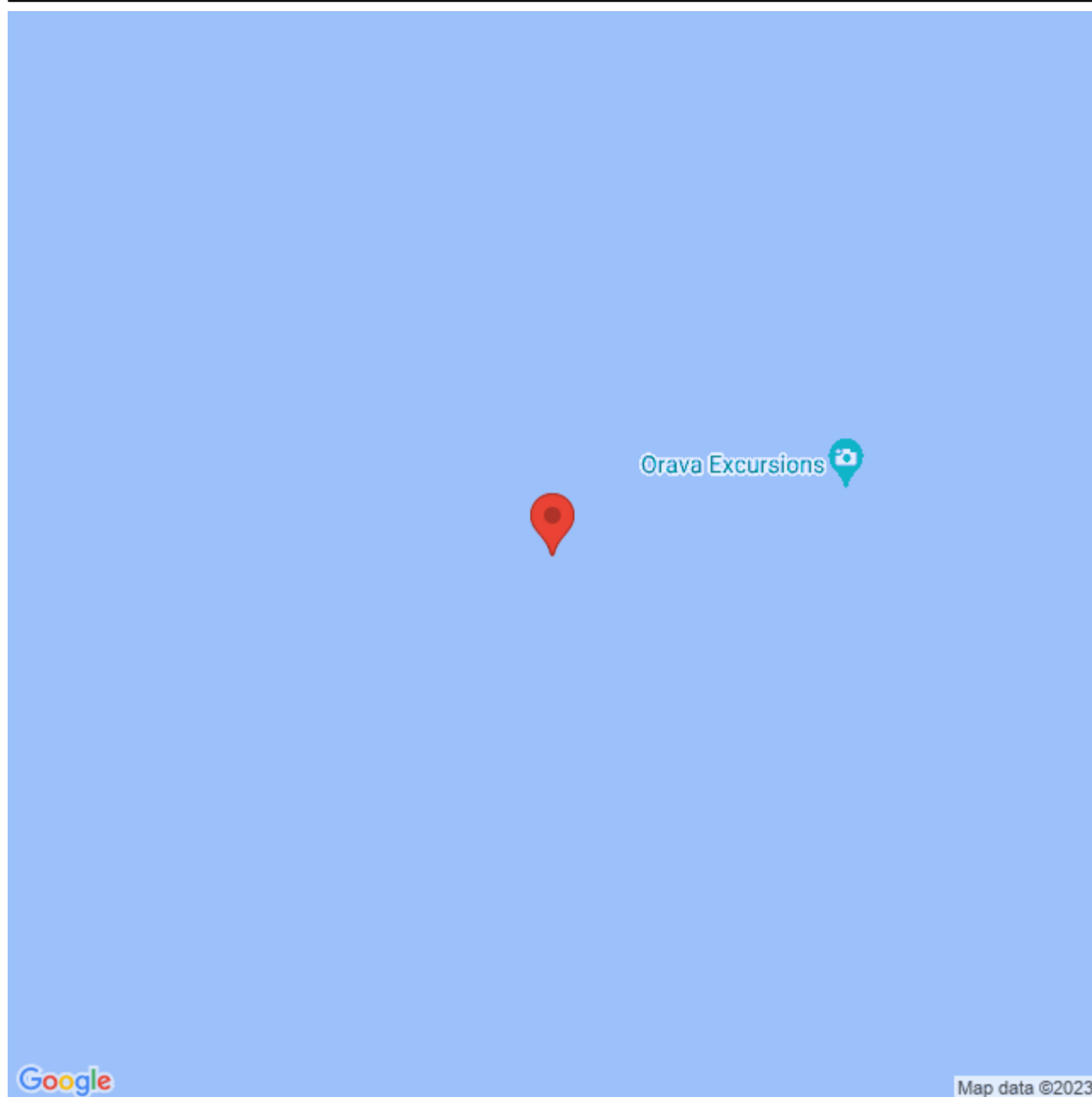
Fill here

Ecology and habitat

In the lagoon, on pinnacles.

Distribution

In French Polynesia: Tuamotu islands



Spongia (spongia) sp. (4888) (OTU QM4888)

Order
Dictyoceratida

Family
Spongiidae



External characters

Sample form: Massive Egg
Surface appearance: Bristling
Consistency: Firm
In situ color: Grey Blue
ex situ Color: Gray
Color section: Grey Green

Dimensions

Fill here

Colour

Grey/blue

Skeletal Characters

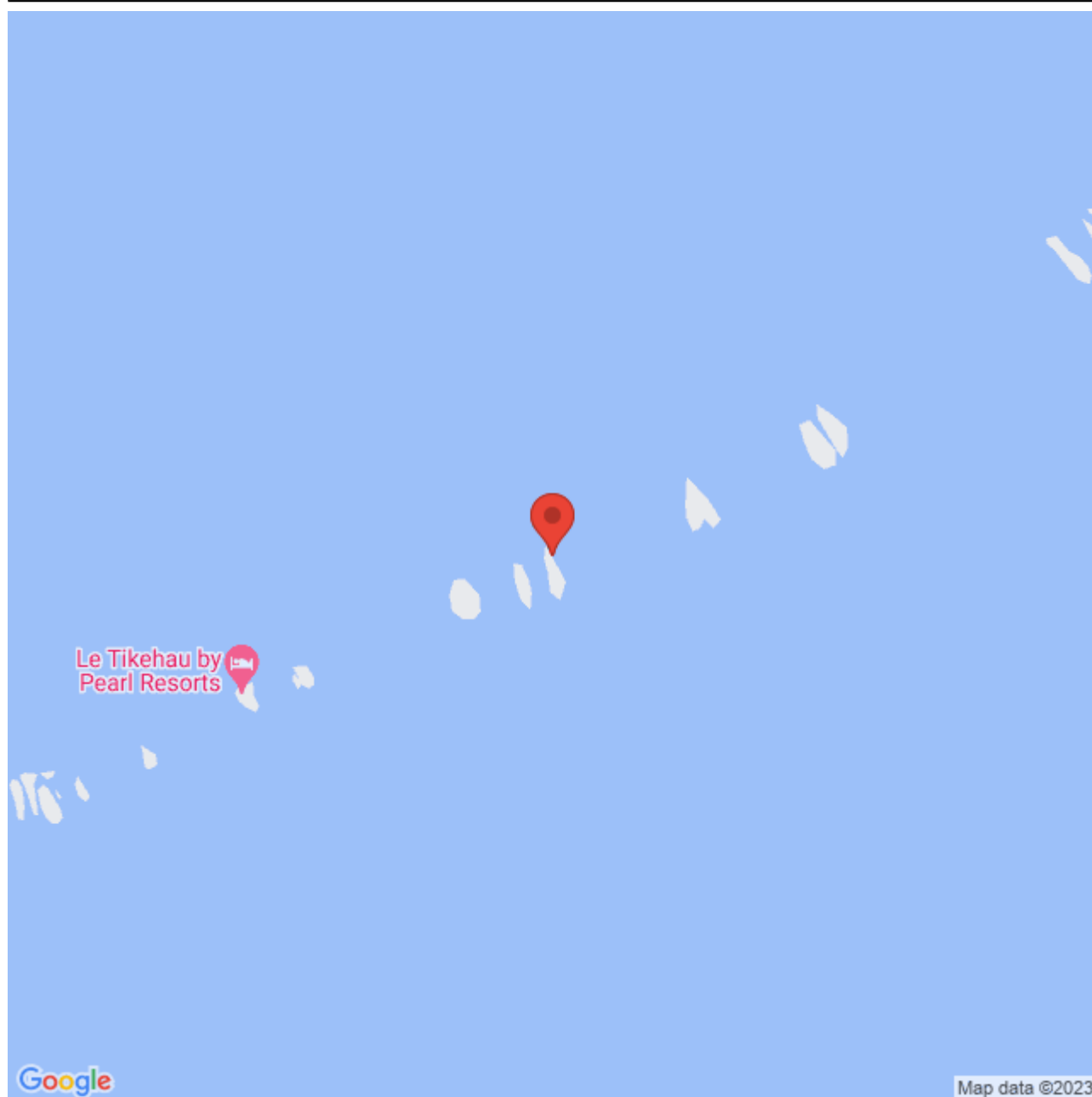
Fill here

Ecology and habitat

In the lagoon, on pinnacles.

Distribution

In French Polynesia: Tuamotu islands



Spongia (Spongia) sp. (OTU QM4763) (OTU QM4763)

Order
Dictyoceratida

Family
Spongiidae



External characters

subspherical, stalked, fig-shaped; stalk tapered, widest at base; with strong basal attachment.

Colour

interior cream, exterior dark cream to brown tinged with lilac-pink near oscules in ethanol.

Skeletal Characters

Oscules	on apical surface only, large, discrete, round, 4–5 mm (d), spaced at least 5 mm apart, but others up to 40 mm apart.
Texture	firm, resists tearing but tearable, rubbery, compressible, slowly resilient.
Surface_Ornamentation	microconulose, fine sandpapery texture.
Ectosomal_Skeleton	densely pigmented; conules lifted by fibres which protrude surface; ectosome delimited by closer spacing of secondary fibres.
Choanosomal_Skeleton	fibrous; fibres differentiated into primary, secondary and tertiary fibres; reticulation very regular, orthogonal; primary fibres strongly laminated, fasciculated in places, especially near ectosome; secondary and tertiary fibres fine; secondary fibres run perpendicular to primaries, not laminated; tertiary fibres perpendicular and diagonal to primaries and secondaries, not laminated; mesohyl clear, largely free of detritus, occasional incorporation of sand grains, pigment less dense than in ectosome.
Megascleres	nil.
Microscleres	nil.

Mudmap_Author	Kathryn Hall
Mudmap_Editor	K Hall

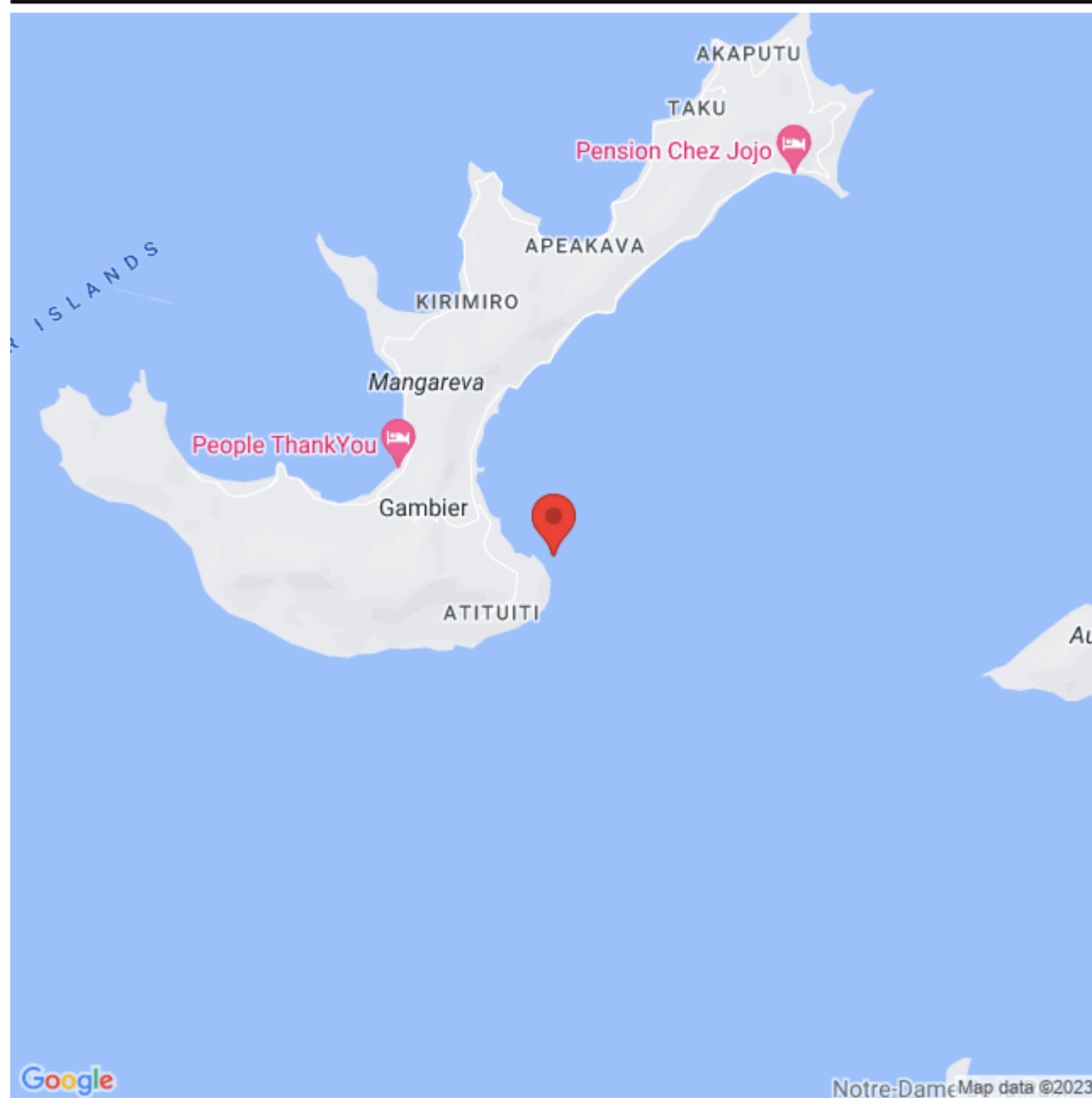
Distribution

In French Polynesia: Gambier and Society islands

Ecology and habitat

Gambier: in the lagoon, on pinnacles.
Society: on the rim of the pass

Kathryn Hall (2012). QM4763 *Spongia* (*spongia*) sp. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Spongia* sp. (4886) (OTU QM4886)**

Order
Dictyoceratida

Family
Spongiidae

External characters

Sample form: Massive Ball
Consistency: firm

Dimensions

<10 cm in diameter

Colour

ex situ Color: Brown

Skeletal Characters

Fill here

Distribution

In French Polynesia: Australes archipelago

Ecology and habitat

Outer reef slope



***Spongia* sp. (OTU QM1983) (OTU QM1983)**

Order
Dictyoceratida

Family
Spongiidae



External characters

Lobate, massive, with short tapering fistules on the apex.

Colour

Dark brown alive; dark brown exterior with beige interior on deck; dark brown exterior with beige interior in ethanol.

Skeletal Characters

Oscules	Single, conspicuous, discrete, moderate size, on apices of short tapering fistules, with slightly raised membranous lip.
Texture	Soft, spongy, compressible.
Surface_Ornamentation	Opaque, membranous, optically smooth; Uneven, microconulose.
Ectosomal_Skeleton	Membranous, darkly pigmented, may be pushed up into microconules by ascending choanosomal primary fibres.
Choanosomal_Skeleton	Regular reticulation of mainly secondary fibres and a reduced number of ascending primary fibres. Primary fibres are cored with sand and spicule detritus. Fibres are non-laminated and are not pithed. Mesohyl collagen is light and slightly granular.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	JNA Hooper

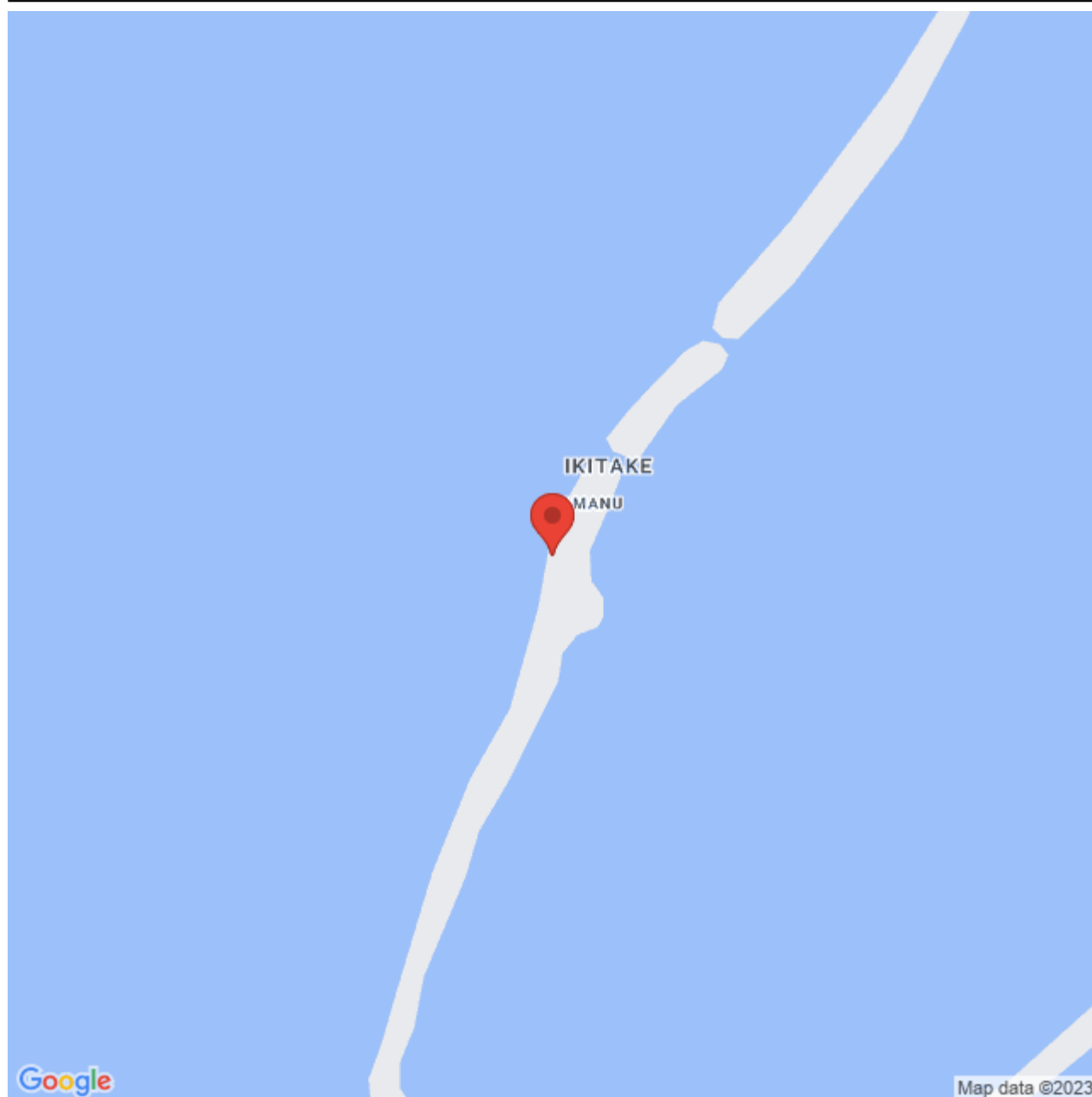
Distribution

In French Polynesia: Tuamotu archipelago

Ecology and habitat

On the outer reef slope.
In the lagoon, on pinnacles.

Queensland Museum (2011). QM1983 *Spongia* sp. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Thorectidae

***Aplysinopsis* sp. (1441) (-)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Encrusting, “spiked”, firm, prominent oscules

Colour

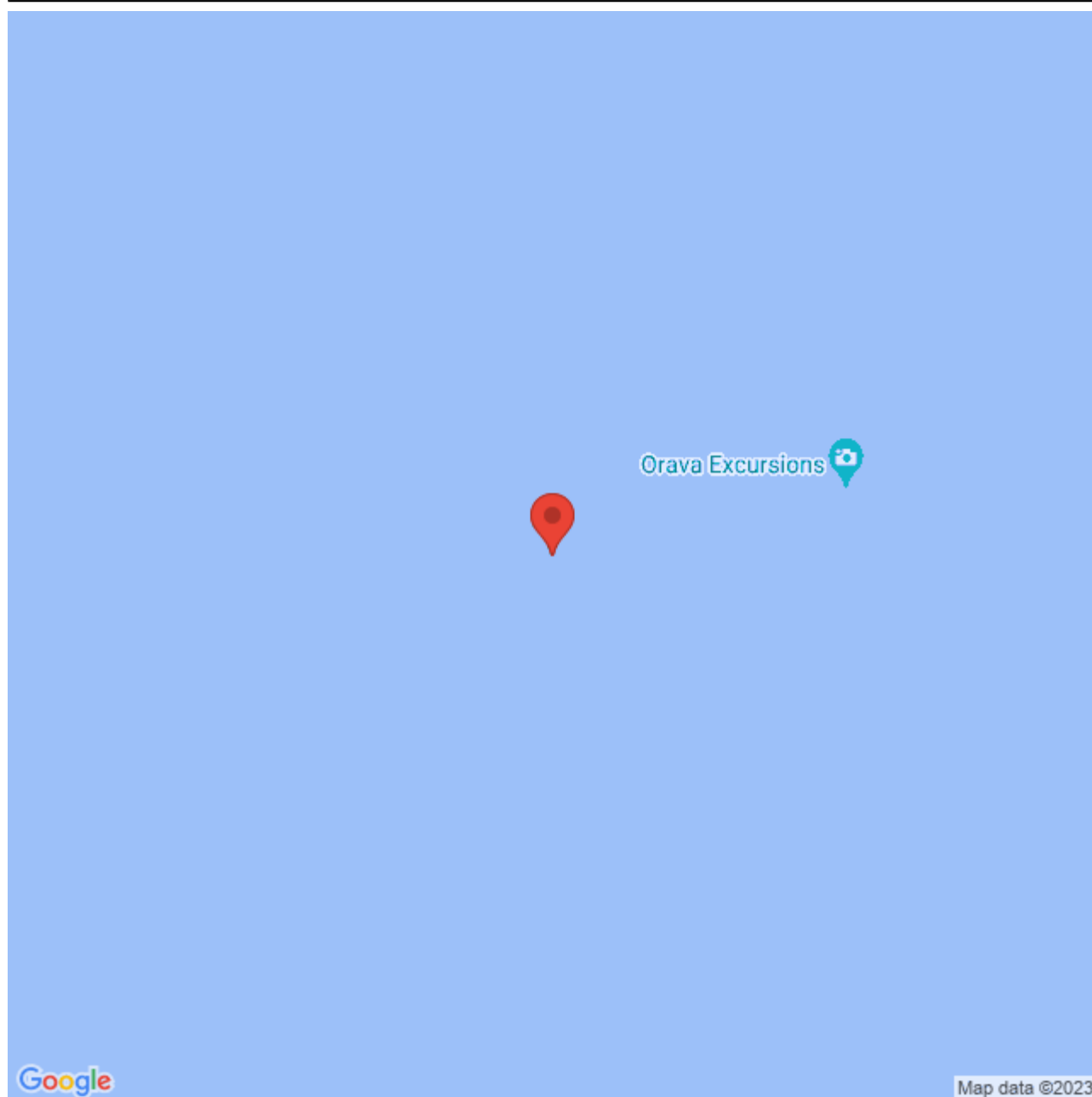
Dark grey

Distribution

In French Polynesia: Tuamotu archipelago is.

Ecology and habitat

On the outer reef slope. 2022



***Aplysinopsis* sp. (OTU QM4400) (OTU QM4400)**

Order
Dictyoceratida

Family
Thorectidae



External characters

bulbous with fistules; base spreading over substrate; fistules blind, thin, erect.

Colour

brown with black areas in ethanol.

Skeletal Characters

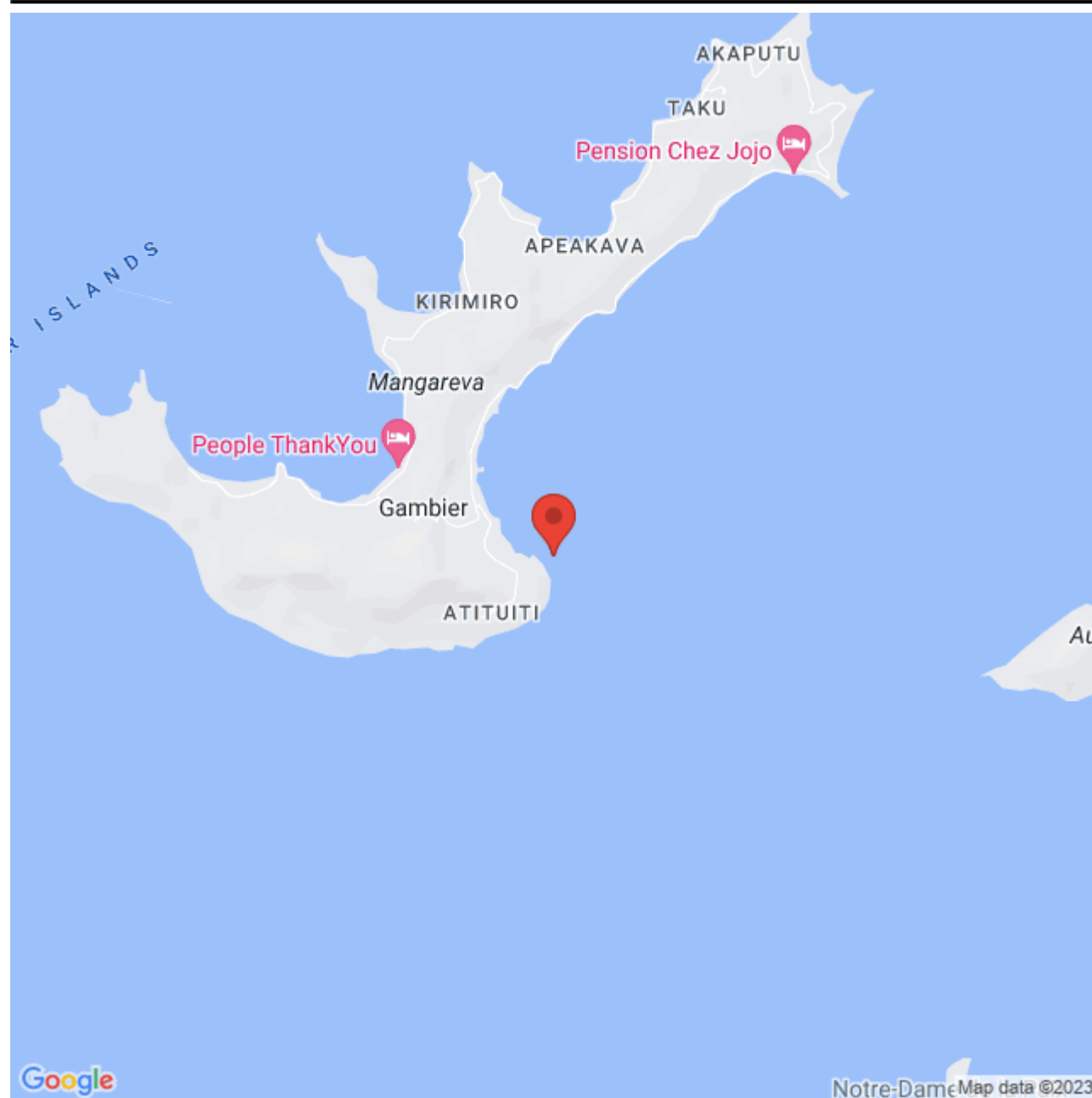
Oscules	not apparent.
Texture	compressibly, spongy, easily torn.
Surface_Ornamentation	conulose.
Ectosomal_Skeleton	thin, sandy crust.
Choanosomal_Skeleton	fibres few, large; mesohyl light.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	P Sutcliffe/M Schlacher-Hoenlinger
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Gambier archipelago

Ecology and habitat

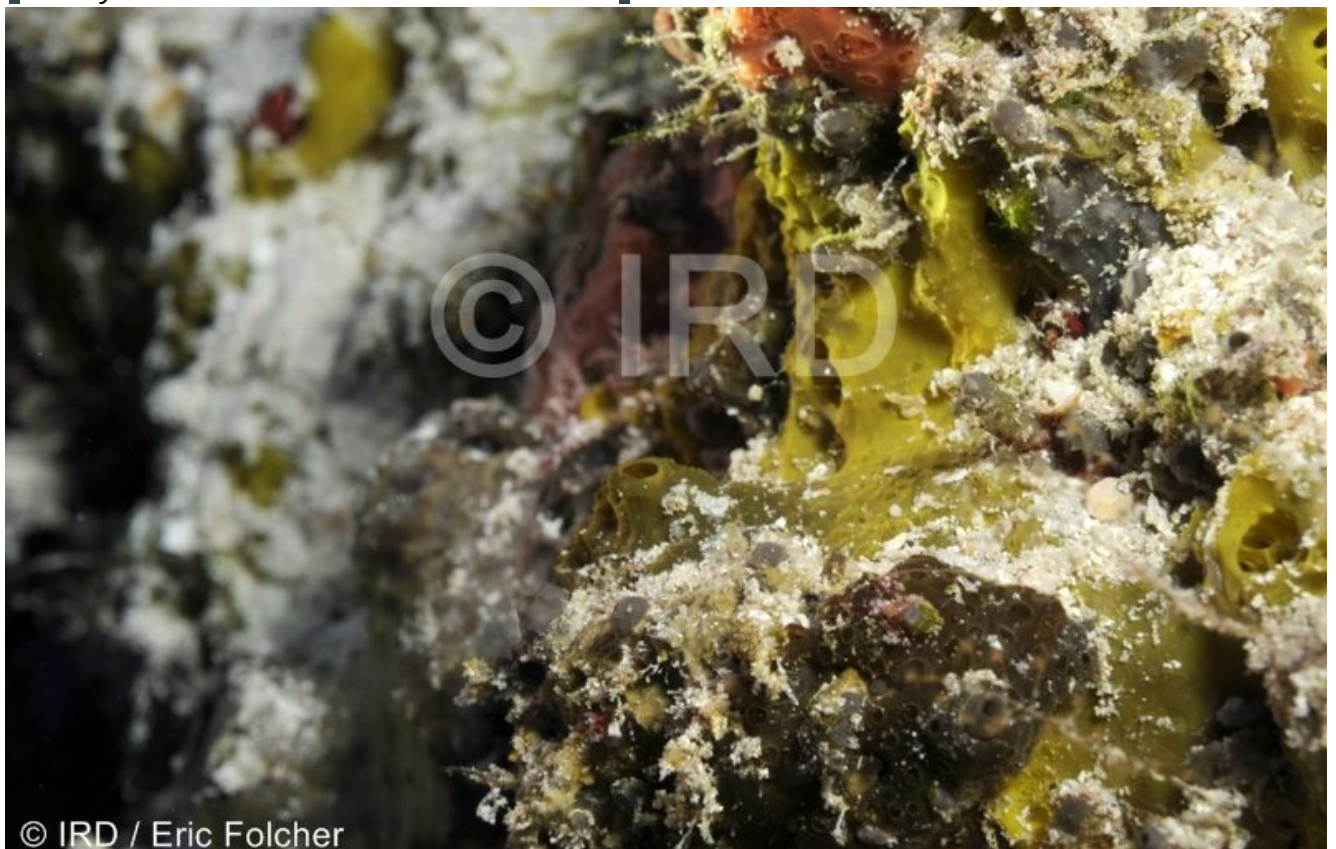
Outer reef slope



***Cacospongia* sp. (2110) (-)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Massive, firm, “spiked”

Colour

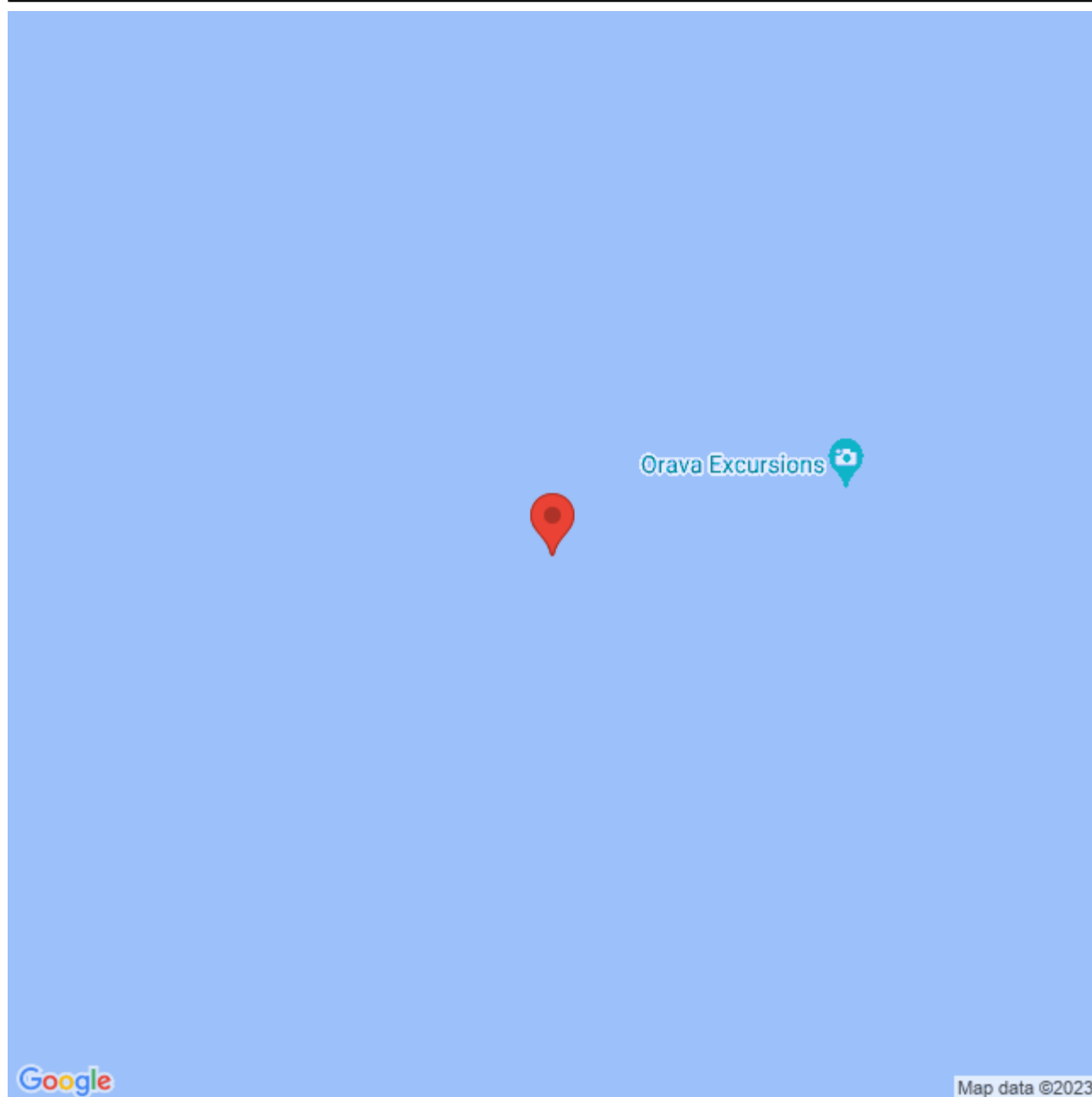
Greenish Yellow

Distribution

In French Polynesia: Tuamotu archipelago is.

Ecology and habitat

On the outer reef slope



***Cacospongia* sp. (2334) (-)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Massive, downy, soft

Colour

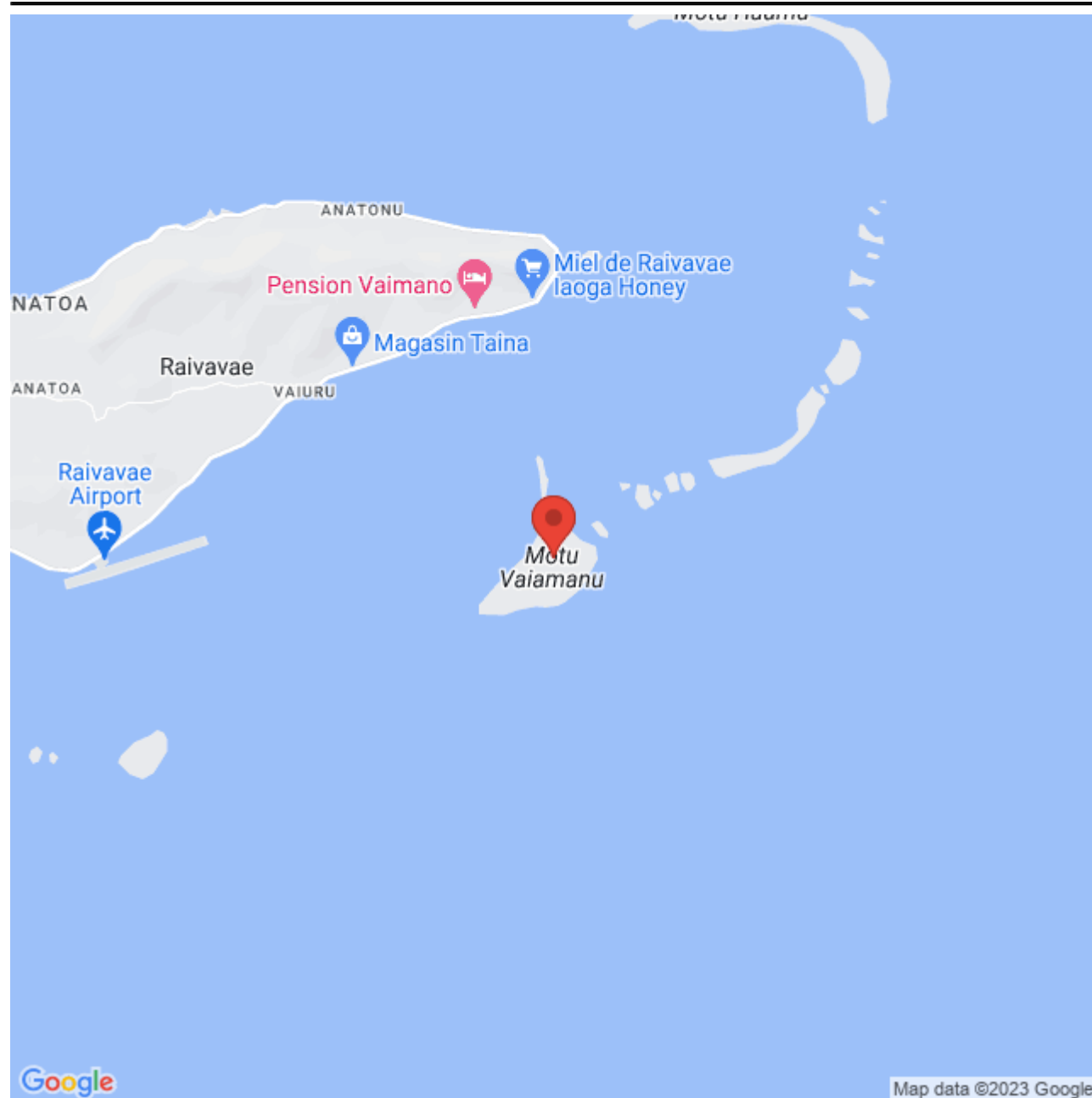
Black

Distribution

In French Polynesia: Austral archipelago is.

Ecology and habitat

In the lagoon, in muddy sand environment



***Dactylospongia elegans* (OTU QM1514)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Thickly encrusting mat, massive cushions..

Colour

yellowish brown living; Dark olive-grey in ethanol. Ext: moss green, Int: bright yellow.

Skeletal Characters

Oscules	Slightly raised, scattered over surface.
Texture	Very tough.
Surface_Ornamentation	Covered with small truncate projections connected by minute ridges.
Ectosomal_Skeleton	membranous, with refractile granules.
Choanosomal_Skeleton	Close meshed secondary fibre skeleton with tertiary fibre skeleton scattered throughout. Fibres clear and lack lamellation.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Ecology and habitat

In Marquesas, on the rocky slope.

In Tuamotu, on the outer reef slope and in the lagoon on the pinnacles.

Distribution

In French Polynesia: Marquesas and Tuamotu islands.

Hooper, J.N.A. (2009). QM1514 *Dactylospongia elegans* In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Dactylospongia metachromia* (OTU QM1520)**

Order
Dictyoceratida

Family
Thorectidae



External characters

thickly encrusting.

Colour

Bright yellow with some olive yellow areas alive; greyish beige in ethanol.

Skeletal Characters

Oscules	Several, moderately small, grouped into sieve plates that run along the apical ridge of the sponge.
Texture	Firm, compressible.
Surface_Ornamentation	Opaque, membranous; Even, unornamented alive but has fibre bundles protruding through the surface membrane in preservative.
Ectosomal_Skeleton	Membranous, without spicule skeleton. May be cavernous in subectosomal region.
Choanosomal_Skeleton	Regular reticulation of condensed secondary spongin fibres making up entire skeleton. All fibres clear and homogeneous in cross-section. Mesohyl collagen is light and homogeneous and totally lacks incorporated detritus.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

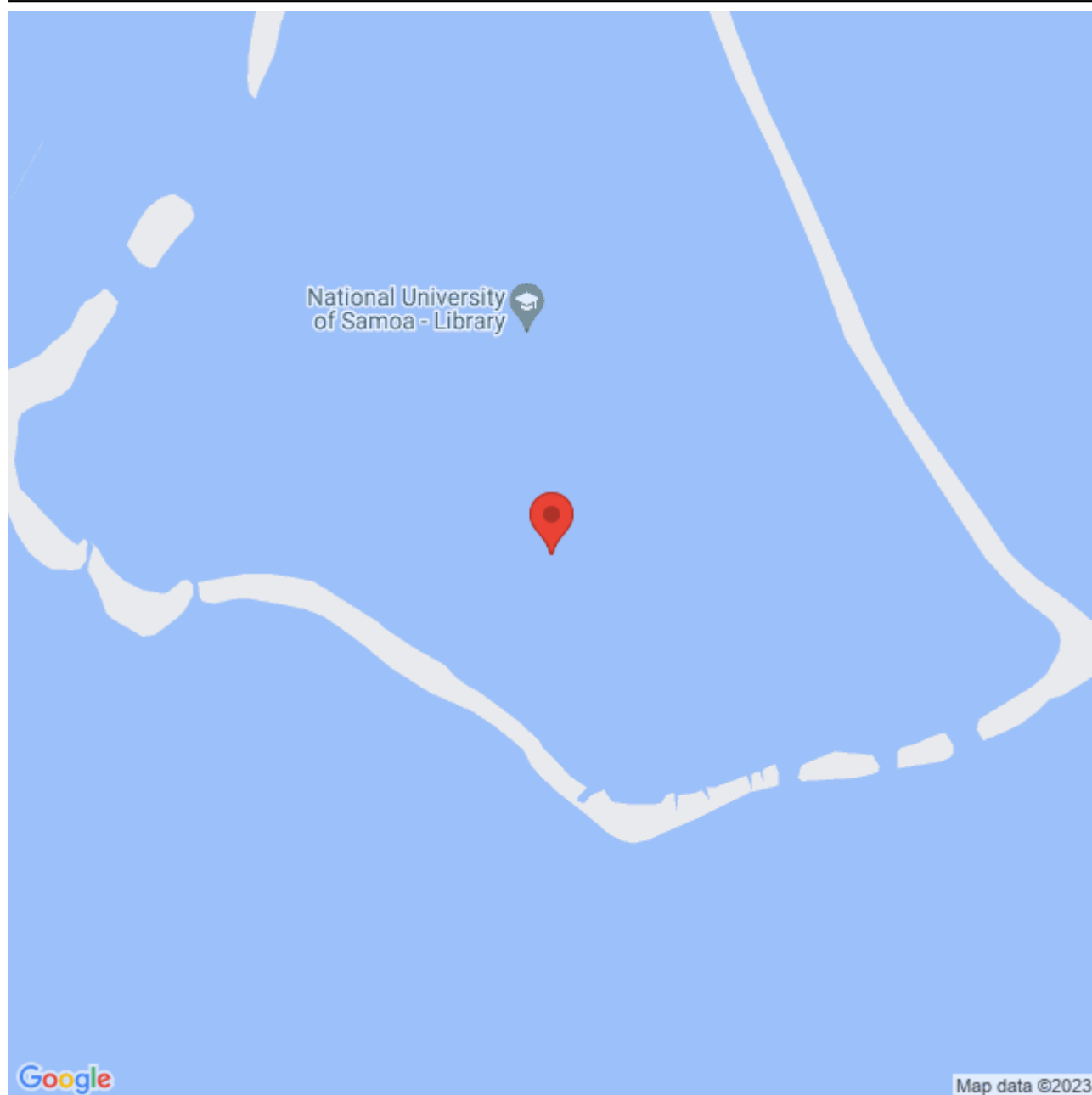
Ecology and habitat

On the outer reef slope.

Distribution

In French Polynesia: Gambier and Tuamotu islands

Hooper, J.N.A. (2013). QM1520 *Dactylospongia metachromia* In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Dactylospongia* sp (4908) (OTU QM4908)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Fill here

Dimensions

Around 2-5 cm of diameter

Colour

Beige alive.

Skeletal Characters

Fill here

Ecology and habitat

In Tuamotu, in the lagoon, on the pinnacles.

In Australes, on the fringing reef slope.

Distribution

In French Polynesia: Tuamotu and Australes islands



***Dactylospongia* sp (OTU QM4856) (OTU QM4856)**

Order
Dictyoceratida

Family
Thorectidae



External characters

digitate branching, cylindrical digits, slightly flattened

Colour

mauve alive

Skeletal Characters

Oscules	oscles raised on lobes on lateral sides
Texture	spongy, compressible, rubbery, flexible
Surface_Ornamentation	surface even macroscopically, goose-flesh microscopically
Ectosomal_Skeleton	ectosomal skeleton collagenous with large primary fibres irregular
Choanosomal_Skeleton	choanosome with light collagen and well developed spongin fibre skeleton
Megascleres	Nil
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

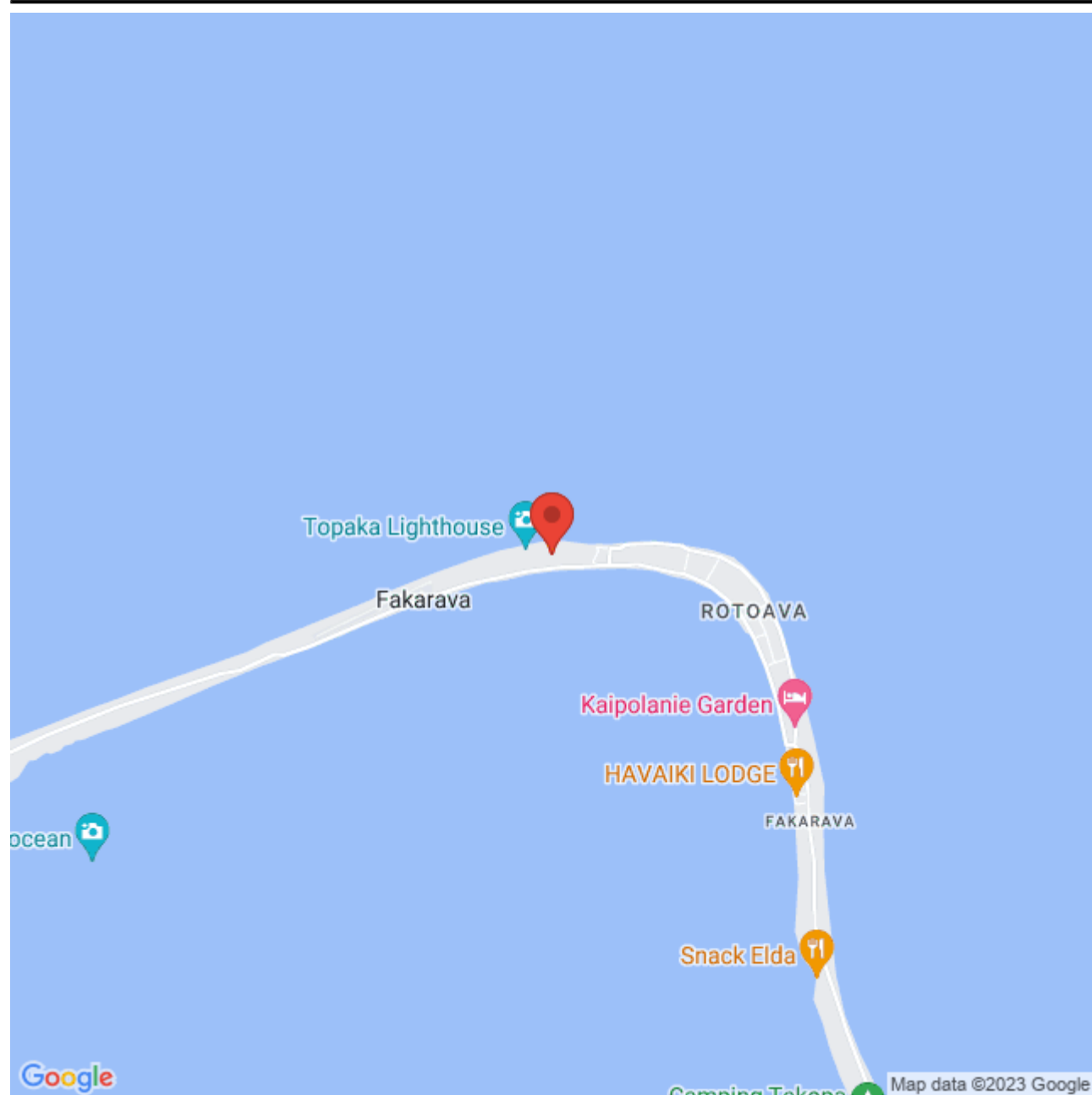
Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

Outer reef slope, and near the outer rim of the pass.

Hooper, J.N.A. (2014). QM4856 *Dactylospongia* sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Fascaplysinopsis* sp. (4906) (OTU QM4906)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Sample form: Massive
Surface appearance: Smooth
Consistency: Soft

Dimensions

Size 5 to 15 cm depending on the specimen.

Colour

In situ color: Orange Brown
ex situ Color: Brick red
Color section: Orange

Skeletal Characters

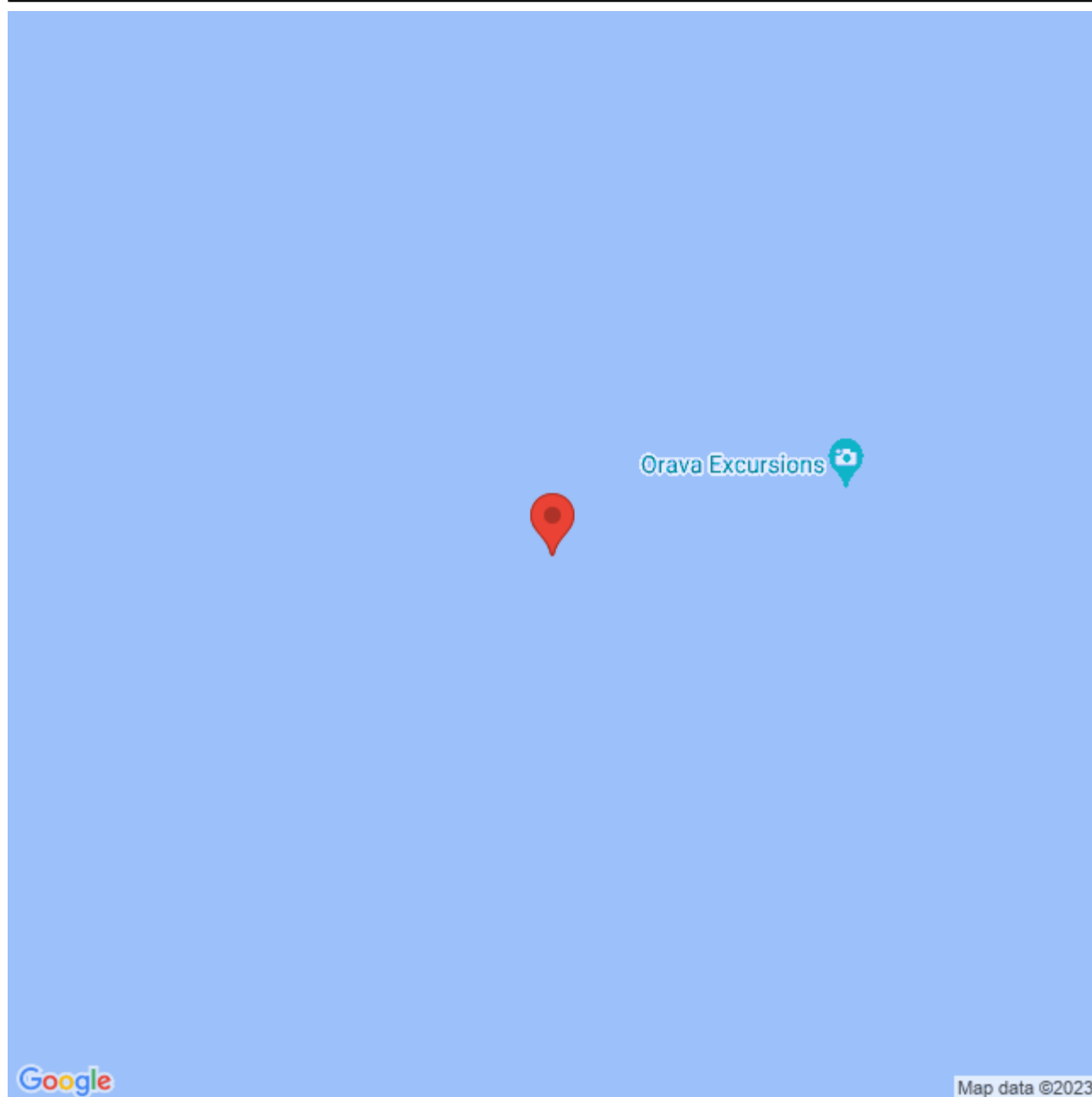
Fill here

Ecology and habitat

Outer reef slope.

Distribution

In French Polynesia: Tuamotu archipelago.



***Fascaplysinopsis* sp. (OTU QM2071) (OTU QM2071)**

Order
Dictyoceratida

Family
Thorectidae

External characters

lobate, spherical, bulbous.

Colour

orange-red in situ; brown on deck, ectosome brown, choanosome light brown in ethanol.

Skeletal Characters

Oscules	several small scattered oscules (not easily visible when preserved)
Texture	tough compressible, difficult to tear
Surface_Ornamentation	opaque, membranous, with low surface conules ranging from rounded to pointed
Ectosomal_Skeleton	heavily pigmented and embedded with sand grains and few foreign spicules; conules formed by ascending fibres
Choanosomal_Skeleton	irregularly fasciculated (or compound) laminated fibres; occasionally fibres are cored with sand, mesohyl heavily collagenous with abundant detritus
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

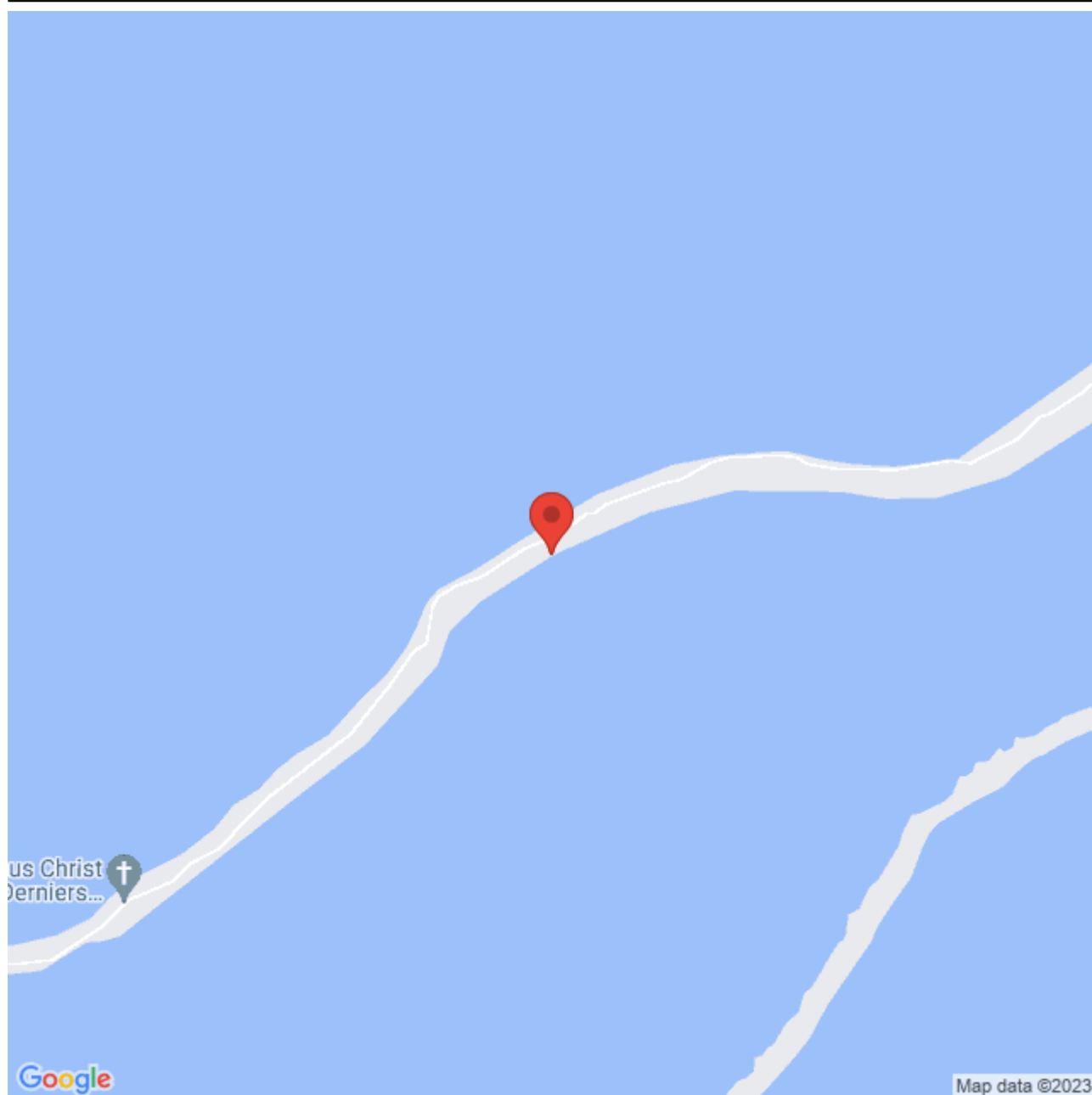
Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

On the outer reef slope.

Hooper, J.N.A. (2011). QM2071 Fascaplysinopsis sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Fasciospongia* sp. (OTU QM4703) (OTU QM4703)**

Order
Dictyoceratida

Family
Thorectidae



External characters

massive, highly lacunose, fistular.

Colour

mottled beige, ranging to red/orange places, most likely due to surface sedimentation, in life; beige, with beige membranous surface extending between cavernous sections, large yellow fibres frequent and highly visible, in ethanol.

Skeletal Characters

Oscules	terminal on fistules.
Texture	compressible, cavernous, harsh, easily torn.
Surface_Ornamentation	membranous, highly cavernous.
Ectosomal_Skeleton	unarmoured, with thin, consistent layer of pigmented collagen.
Choanosomal_Skeleton	fibrous; thick, primary tracts extend to tips of conules; primary fibres thick, lightly cored near the surface, fasciculate; high degree of fasciculation where secondary fibres branch from primary fibres; secondary fibres clear, regular, branching; all fibres form dense reticulation; light, patchy collagen throughout.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas archipelago and Mehetia (Society archipelago).

Ecology and habitat

On the rocky slope of the island.

P. Sutcliffe (2012). QM4703 *Fasciospongia* sp. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Hyrtios* sp. (778) (-)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Massive, fingered, spiked, soft

Colour

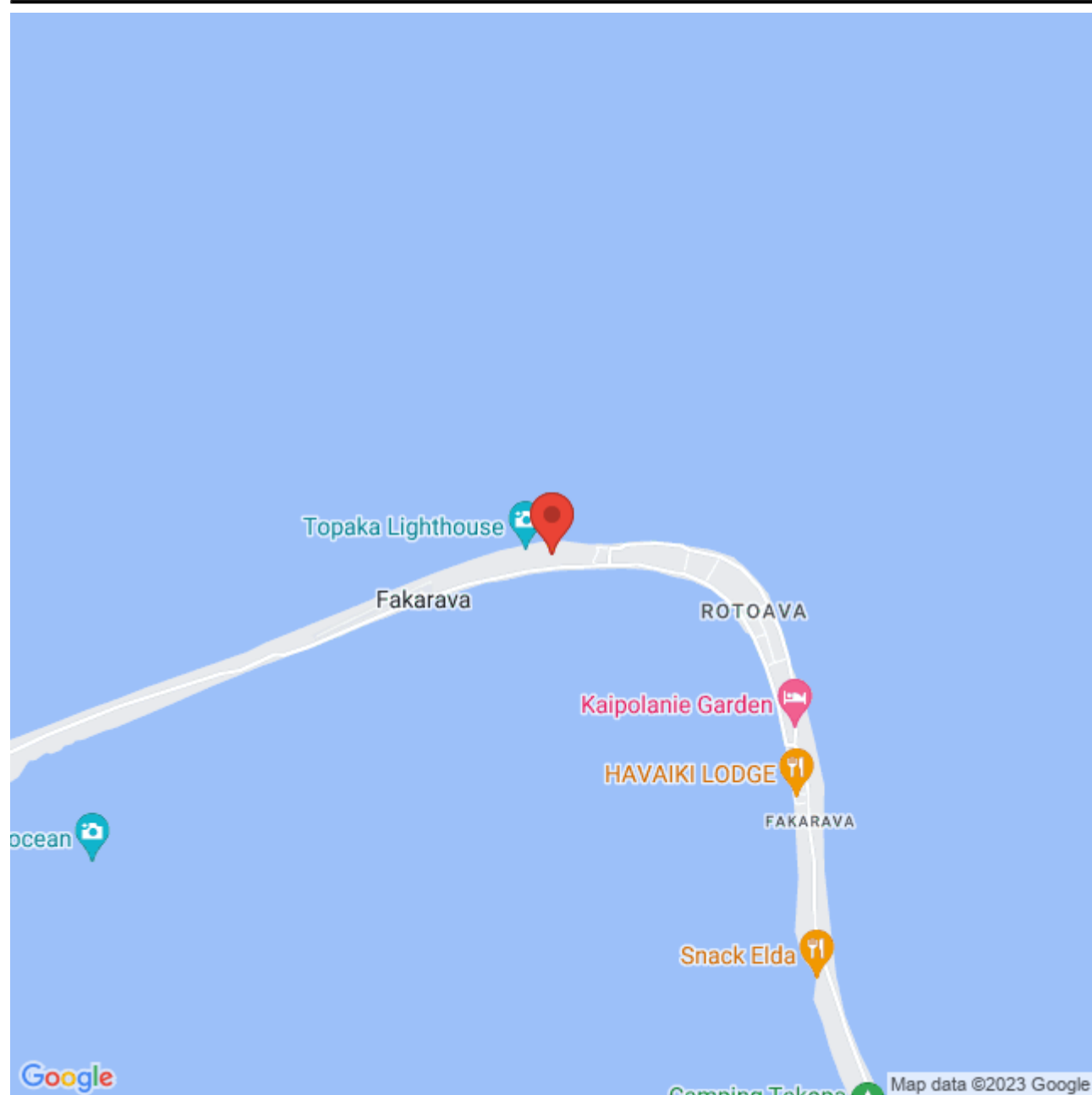
Grey

Distribution

In French Polynesia: Tuamotu archipelago is.

Ecology and habitat

On the outer reef slope



Hyrtios sp. (OTU QM2864) (OTU QM2864)

Order
Dictyoceratida

Family
Thorectidae



External characters

Massive , lobate.

Colour

Tan brown.

Skeletal Characters

Oscules	Minute, in small groups on lobes.
Texture	Hard, harsh.
Surface_Ornamentation	Arenaceous.
Ectosomal_Skeleton	Indistinct from choanosome.
Choanosomal_Skeleton	Large tracts of large sand-grains in almost indistinct fibres occupying most of choanosome. Mesohyl is moderately dense and has some sand-grains.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	JA Kennedy
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tahiti

Ecology and habitat

On the outer reef slope

J.A. Kennedy (2014). QM2864 Hyrtios sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Hyrtios* sp. (OTU QM3466) (OTU QM3466)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Crawling over substrate digits.

Colour

Black exterior, light brown interior in ethanol and alive.

Skeletal Characters

Oscules	Very few scattered over the surface.
Texture	Compressible and firm.
Surface_Ornamentation	Conulose with small conules.
Ectosomal_Skeleton	Conules are formed by fibres protruding underneath the surface. Surface layer contains a large amount of sand particles.
Choanosomal_Skeleton	Very irregular fibre network. Fibres are scarce and completely cored by sand. Mesohyl collagen is dense and is the main component of the choanosome.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tahiti

Ecology and habitat

Near the outer rim of the pass, or in the lagoon on the pinnacles.

P. Sutcliffe (2014). QM3466 Hyrtios sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Hyrtios sp. (OTU QM4761) (OTU QM4761)

Order
Dictyoceratida

Family
Thorectidae



External characters

massive, irregular, lobate.

Colour

exterior dark brown to khaki in ethanol.

Skeletal Characters

Oscules	large, on ends of lobes, circular, 6–7 mm (d).
Texture	dense, tearable, barely compressible.
Surface_Ornamentation	highly conulose; conules 1–2 mm (h), spaced ~2 mm apart.
Ectosomal_Skeleton	not conspicuously distinguished from choanosome; conules raised by large fibres which protrude though ectosome.
Choanosomal_Skeleton	fibrous; reticulation of primary and secondary fibres; primaries not differentiated from secondaries; fibres regularly spaced, strongly cored with sand; mesohyl collagenous, incorporates small amounts of detritus and pigment.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	Kathryn Hall
Mudmap_Editor	Kathryn Hall

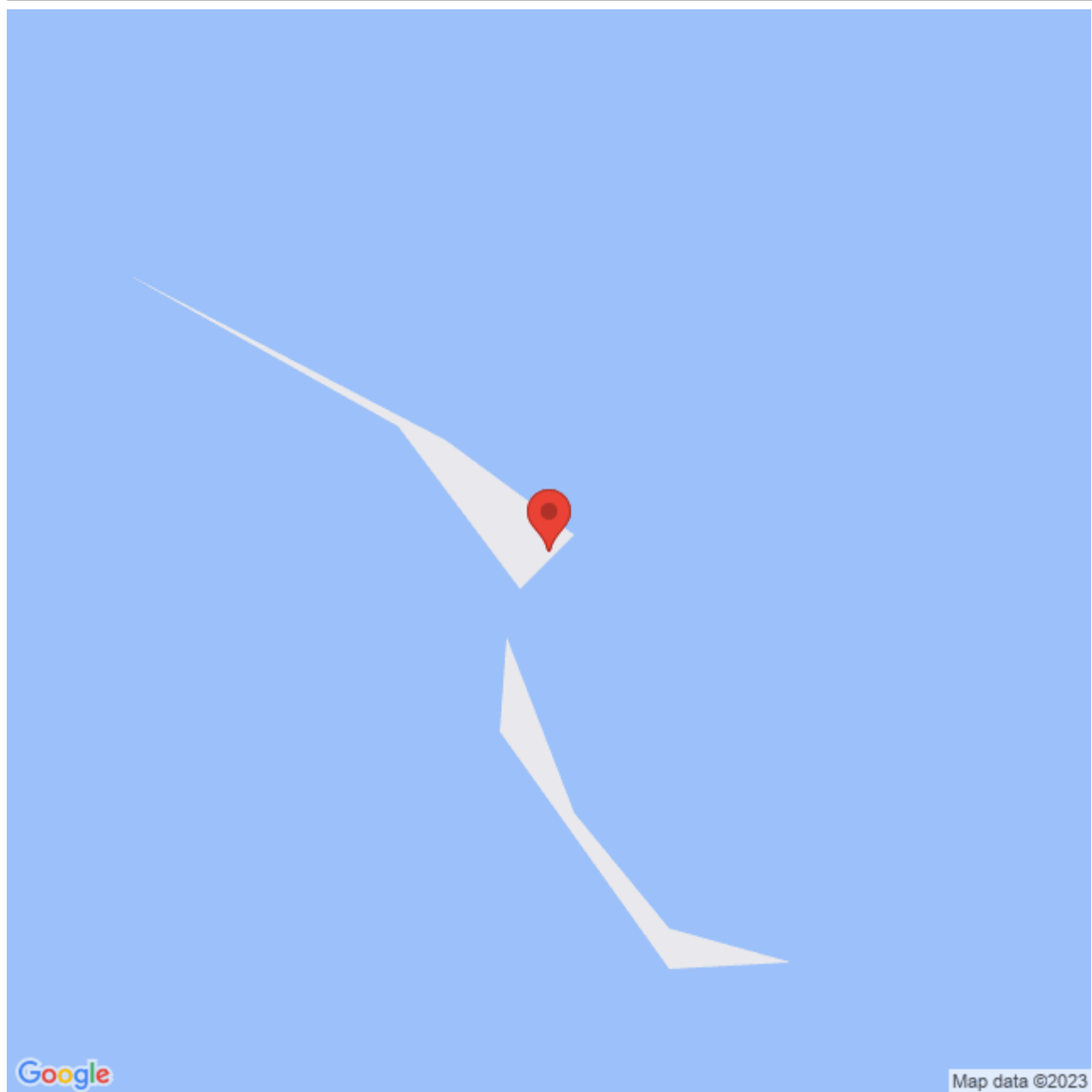
Distribution

In French Polynesia: Society archipelago

Ecology and habitat

In the lagoon, on coral sand.

Kathryn Hall (2012). QM4761 Hyrtios sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Luffariella* sp. (1227) (-)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Fingered, spiked, firm

Dimensions

15 – 20 cm

Colour

Whitish

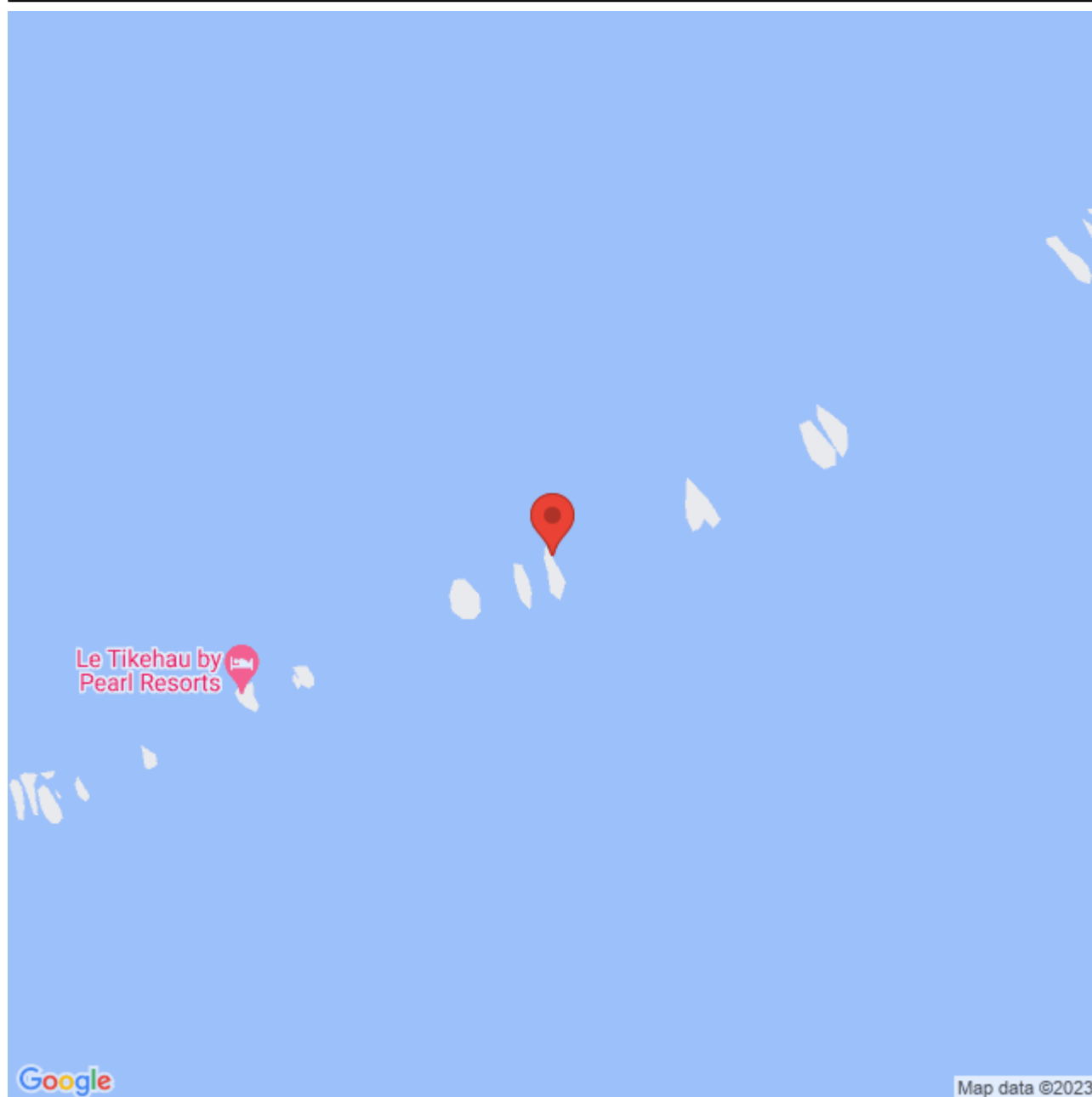
Distribution

In French Polynesia: Tuamotu archipelago is.

Pacific Ocean: Solomon islands

Ecology and habitat

On the outer reef slope



***Luffariella* sp. (4894) (OTU QM4894)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Sample form: tubing
Surface appearance: Rough
Consistency: soft

Colour

In situ color: Grey Blue
ex situ Color: Grey Blue

Skeletal Characters

Fill here

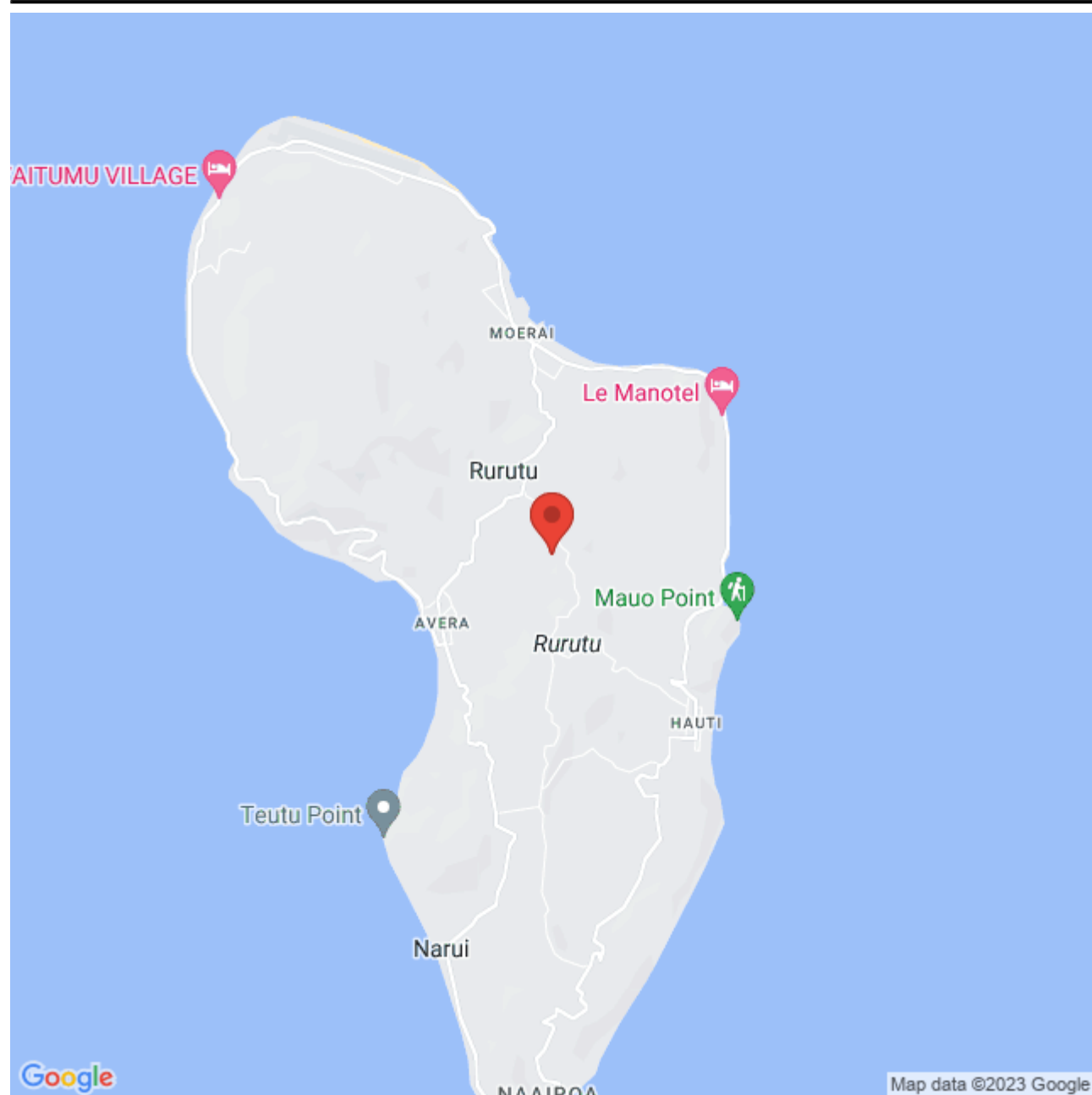
Ecology and habitat

On sandy slope in Australes islands.

In caves in Tahiti.

Distribution

In French Polynesia: Australes archipelago and Tahiti



***Semitaspongia* sp. (4890) (OTU QM4890)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Surface appearance: Cavernous Sweet
Consistency: Spongy

Dimensions

Fill here

Colour

In situ color: Light Brown
Color section: Light Brown
ex situ Color: Light Brown

Skeletal Characters

Fill here

Ecology and habitat

On rocky slope.

Distribution

In French Polynesia: Marquesas archipelago.



***Smenospongia* sp. (OTU QM4760) (OTU QM4760)**

Order
Dictyoceratida

Family
Thorectidae



External characters

irregular, digitiform, loose fingers, ramose.

Colour

exterior deep maroon in ethanol.

Skeletal Characters

Oscules	large, on apices of digits, few, circular, ~3 mm (d).
Texture	tough, tearable, rubbery, compressible, resilient.
Surface_Ornamentation	conulose, fibres protrude beyond conules, shiny and smooth between conules.
Ectosomal_Skeleton	distinguished from choanosome; conules raised by fibres which protrude though ectosome; ectosome heavily pigmented.
Choanosomal_Skeleton	fibrous; reticulation of primary and secondary fibres; primaries not differentiated from secondaries; fibres clear, lightly laminated, not dense; mesohyl incorporates foreign spicule debris and small sand grains, little pigment; pigment in granules.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	Kathryn Hall
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Society archipelago

Ecology and habitat

Bottom of the pass

Kathryn Hall (2012). QM4760 *Smenospongia* sp. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Thorecta* sp. (OTU QM2075) (OTU QM2075)**

Order
Dictyoceratida

Family
Thorectidae



External characters

Ranging from thin cylindrical digits erect on the substrate to globular or tubular digits completely attached to the substrate.

Colour

Grey, grey-brown to khaki brown alive; grey in etoh.

Skeletal Characters

Oscules	Small, on apex of surface or digits, with raised oscular lip that collapses in air.
Texture	Fibrous, spongy, tough, difficult to tear.
Surface_Ornamentation	Conulose, minutely reticulated surface pattern, membranous opaque in air.
Ectosomal_Skeleton	Detritus packed surface forms a distinct "skin" visible to the naked eye. All detail of ectosome is obscured by the density of the detritus.
Choanosomal_Skeleton	Primary fibres are cored with some detritus. Fibres form large rectangular mesh. Occasionally secondary fibres have also incorporated detritus. Mesohyl is moderately dense and granular.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	J Hooper

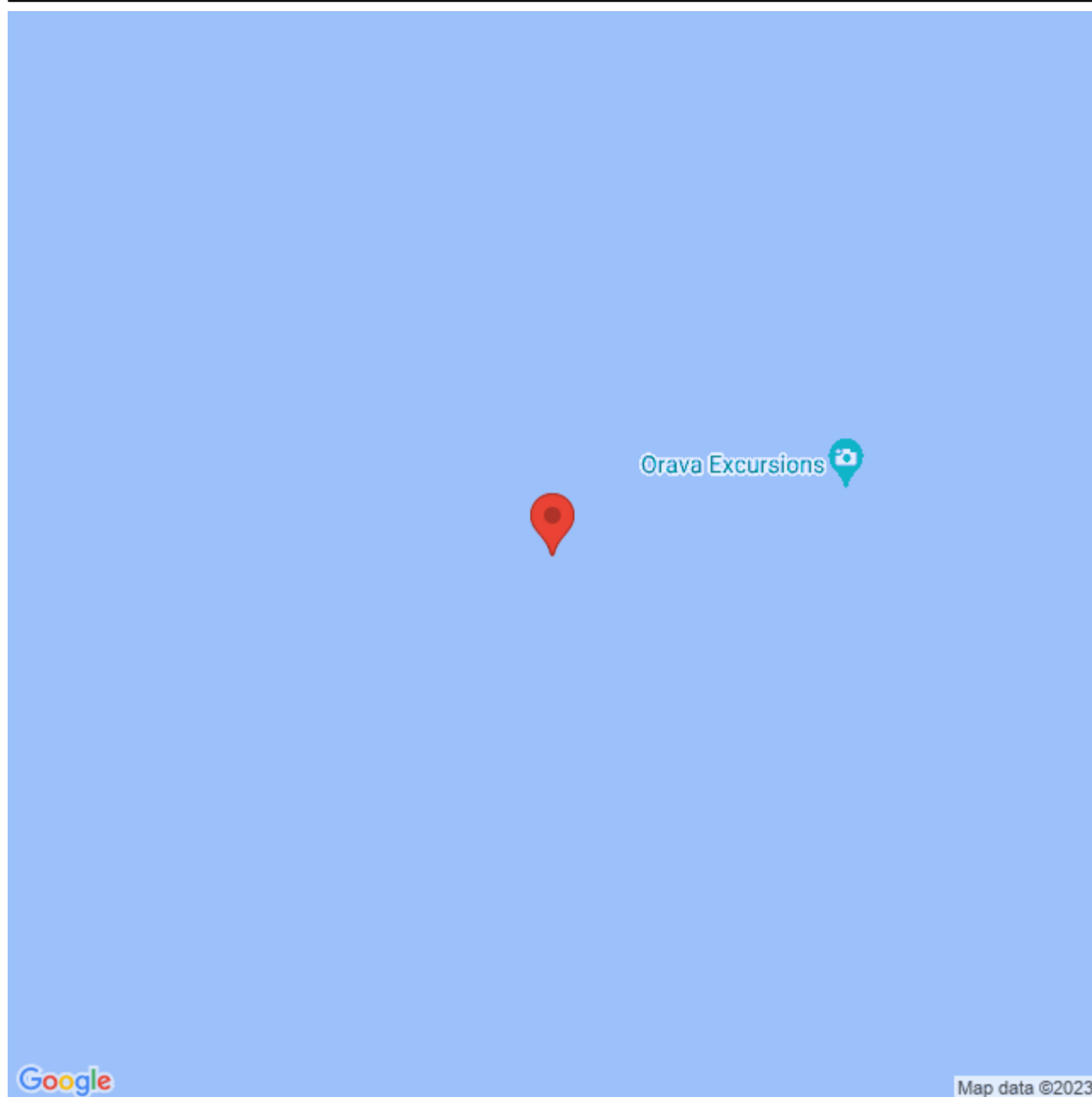
Distribution

In French Polynesia: Tuamotu archipelago

Ecology and habitat

In the lagoon, on pinnacles, in coral sand.

P Sutcliffe (2007). QM2075 Thorecta sp. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Verticillitidae

***Vaceletia crypta* (OTU QM0655)**

Order
Dictyoceratida

Family
Verticillitidae



External characters

growing on stalk <3cm (l), head round <1 cm (d).

Colour

grey on deck.

Skeletal Characters

Oscules	single, apical exhalent pore.
Texture	no observations.
Surface_Ornamentation	no observations.
Ectosomal_Skeleton	'spinctozoan' grade of construction; solid aragonitic cortex, series of chambers on top of each other; lack free spicules.
Choanosomal_Skeleton	none.
Megascleres	nil.
Microscleres	nil.
Mudmap_Editor	K Hall

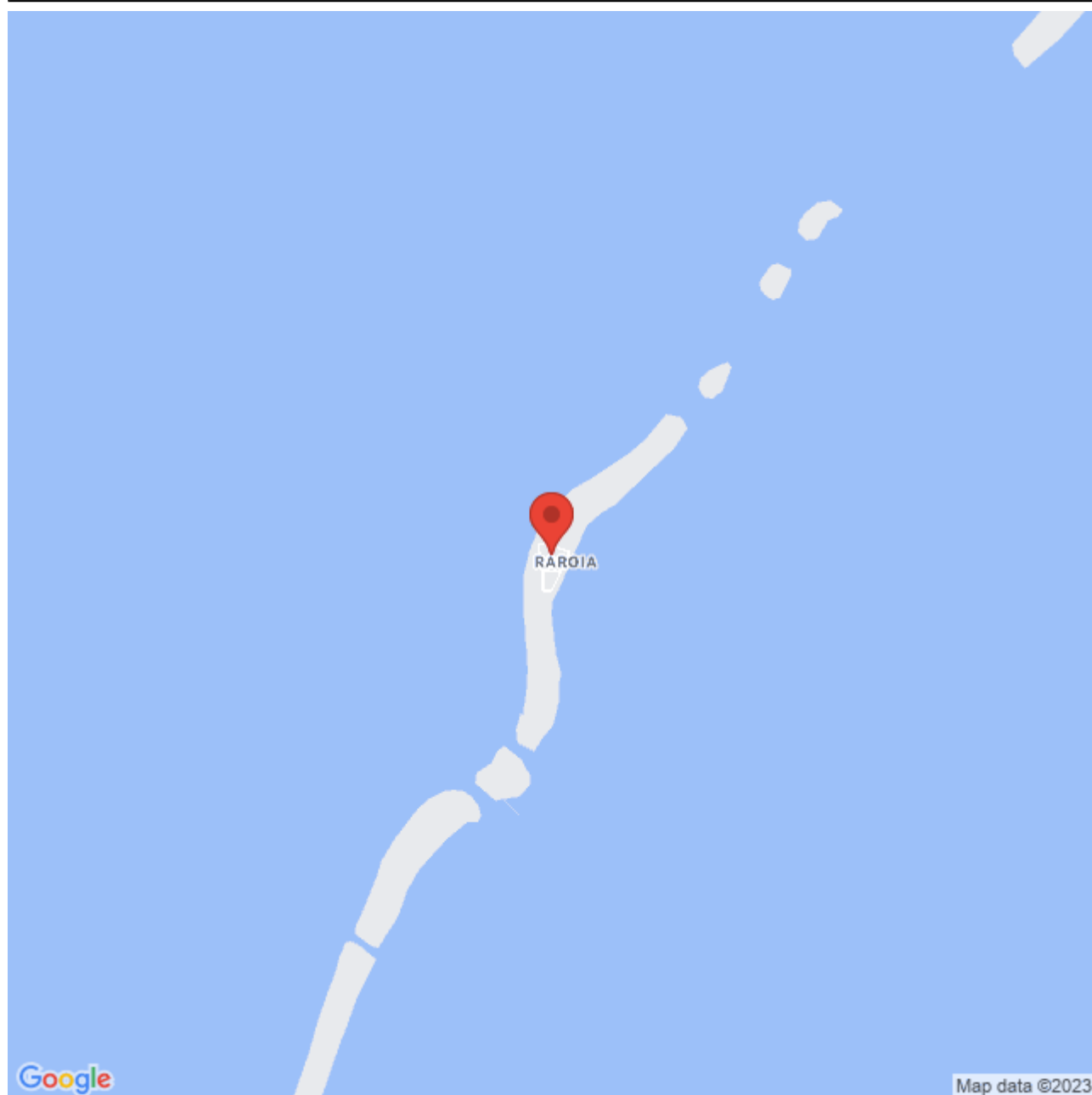
Ecology and habitat

Outer reef slope, near the pass

Distribution

In French Polynesia: Tuamotu islands

Queensland Museum (2008). QM0655 *Vaceletia crypta* In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



Order: Hadromerida

Family: Spirastrellidae

***Diplastrella* sp. (OTU QM1362) (OTU QM1362)**

Order
Hadromerida

Family
Spirastrellidae



External characters

thickly encrusting, collapses in ethanol.

Colour

red in life; beige in ethanol.

Skeletal Characters

Oscules	medium-sized, scattered over surface, not visible in ethanol.
Texture	soft, easily peeled from substrate.
Surface_Ornamentation	no distinctive ornamentation in ethanol.
Ectosomal_Skeleton	bouquets of tylostyles project through collagenous layer; diplasters form thin, but dense, consistent crust at surface.
Choanosomal_Skeleton	plumose tracts of tylostyles, diplasters scattered throughout; diplasters in higher concentrations basally, forming distinct layer.
Megascleres	tylostyles.
Microscleres	diploasters.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas archipelago

Ecology and habitat

On rocky cliff.

P Sutcliffe (2012). QM1362 *Diplastrella* sp. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Diplastrella* sp. (OTU QM4333) (OTU QM4333)**

Order
Hadromerida

Family
Spirastrellidae



External characters

very thinly encrusting.

Colour

red in life; cream in ethanol.

Skeletal Characters

Oscules	not visible.
Texture	no observations.
Surface_Ornamentation	no observations.
Ectosomal_Skeleton	thick crust of diplasters at surface, set in darkly pigmented layer with echinating palisade of tylostyles.
Choanosomal_Skeleton	plumose arrangement of tylostyles with diplasters scattered throughout choanosome.
Megascleres	tylostyles.
Microscleres	diploasters.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Marquesas archipelago

Ecology and habitat

On rocky slope.

Hooper, J.N.A. (2014). QM4333 *Diplastrella* sp. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Spirastrella* sp. (OTU QM3137) (OTU QM3137)**

Order
Hadromerida

Family
Spirastrellidae



External characters

massive, thickly lobate.

Colour

dark red on deck; cream and orange in ethanol

Skeletal Characters

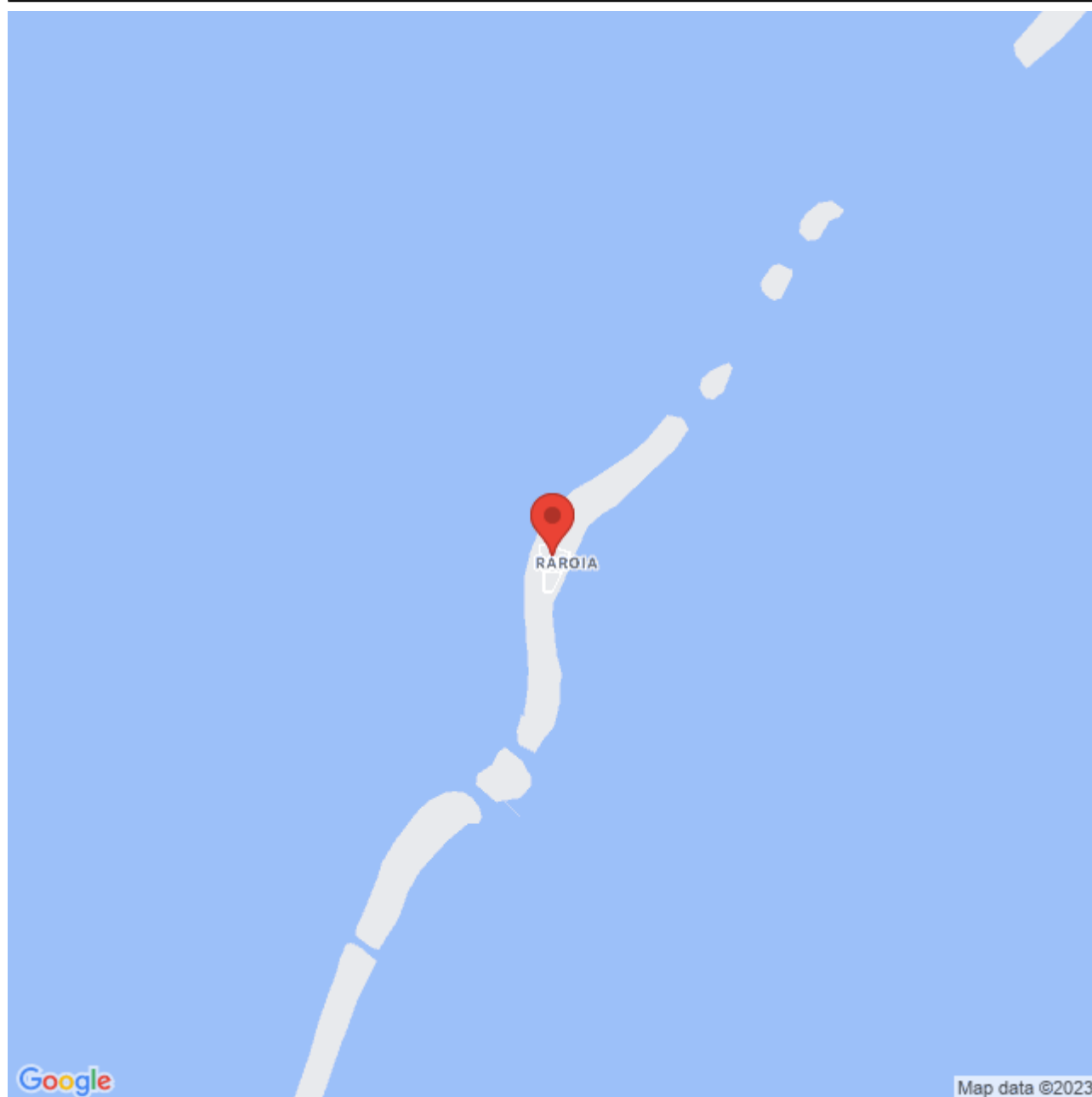
Oscules	numerous, large, no lip, scattered over mounds.
Texture	slightly compressible, tearable.
Surface_Ornamentation	goose-flesh.
Ectosomal_Skeleton	thick, dense layer of spirasters.
Choanosomal_Skeleton	thick tracts of tylostyles anastomosing irregularly throughout; tylostyles and spirasters scattered throughout; no fibres; collagen moderate.
Megascleres	tylostyles: ~300 µm.
Microscleres	spirasters: 2 size classes, 1, thick, robust, ~30 µm, 2, thin, fine, ~20 µm.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tuamotu, Australes archipelagos and Tahiti

Ecology and habitat

In the lagoon: on pinacles, on the fringing reef



***Spirastrella* sp. (OTU QM4689) (OTU QM4689)**

Order
Hadromerida

Family
Spirastrellidae



External characters

burrowing, with single fistules protruding above sandy substrate.

Colour

mustard yellow in life; mustard yellow in ethanol.

Skeletal Characters

Oscules	apical to fistules.
Texture	firm, brittle, fragile; fistules very fragile.
Surface_Ornamentation	mottled, areolate pattern observed in live specimens, but not visible after preservation; fistules flattened longitudinally, as if pressed; internal structure of fistule walls cavernous.
Ectosomal_Skeleton	continuous palisade of smaller tylostyles.
Choanosomal_Skeleton	dense, confused mass of larger megascleres; lacunose skeletal structure; microscleres scattered throughout.
Megascleres	tylostyles: 2 size classes.
Microscleres	spirasters: 2 size classes.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas archipelago

Ecology and habitat

In shelly sand medium.

P Sutcliffe (2012). QM4689 *Spirastrella* sp. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Order: Haplosclerida

Family: Callyspongiidae

Callyspongia (Euplacella) sp. (OTU QM2708) (OTU QM2708)

Order
Haplosclerida

Family
Callyspongiidae



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External characters

Thickly encrusting on a burrowing Aka sponge

Colour

drab brown

Skeletal Characters

Oscules	.none observed
Texture	firm, compressible
Surface_Ornamentation	optically smooth, microscopically rough and shaggy
Ectosomal_Skeleton	.thick tufts of spicules in bundles erect on the surface fibres
Choanosomal_Skeleton	regular ovoid meshes formed by well developed spongin fibres cored by several to few spicules
Megascleres	small, thin oxeas with rounded barely pointed ends
Microscleres	Nil
Mudmap_Author	J Hooper
Mudmap_Editor	J Hooper

External characters

Massive with tubular oscules, and epiphyted surface

Dimensions

~ 10 cm large.

Colour

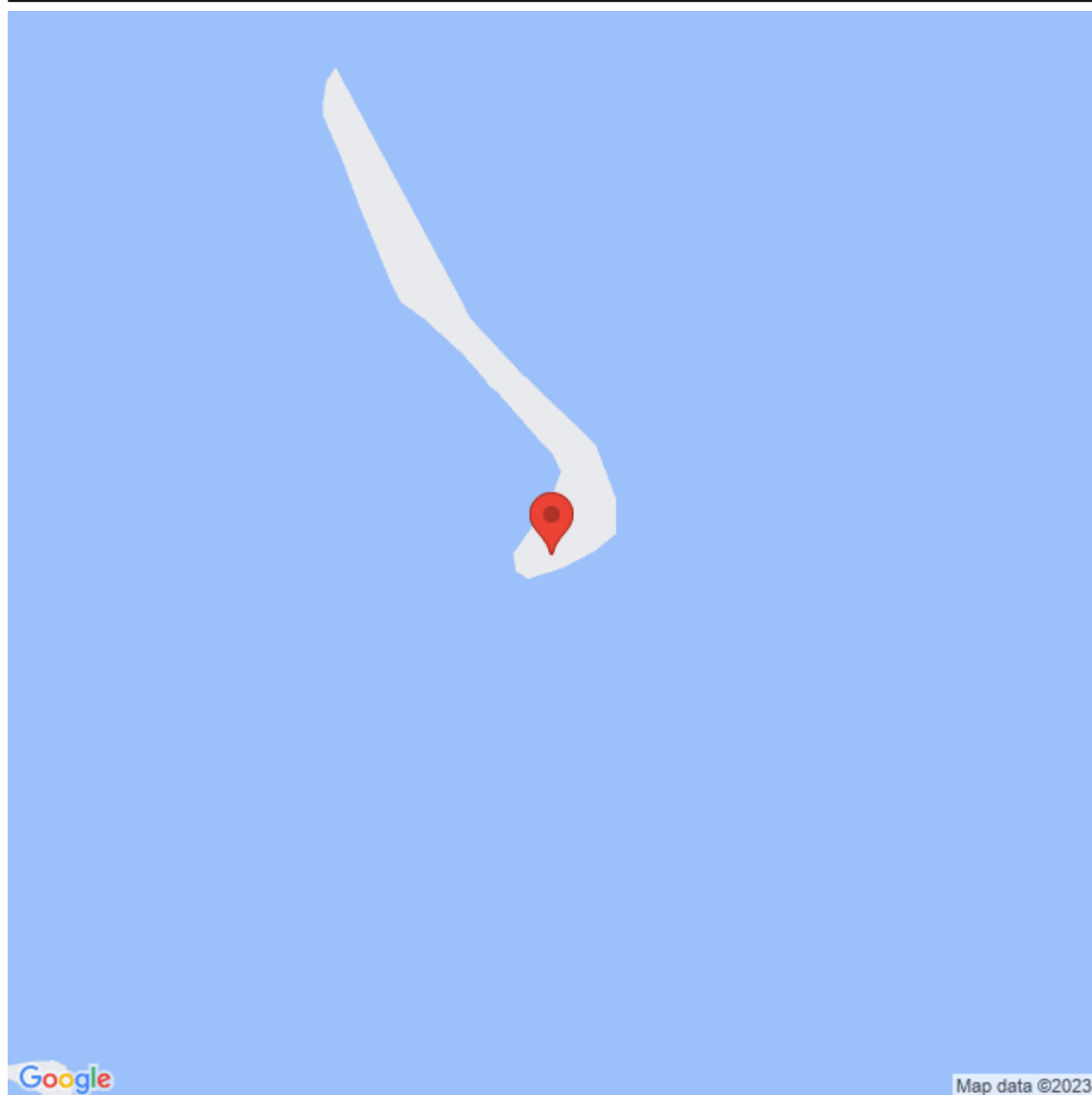
Black

Distribution

In French Polynesia: Tuamotu archipelago is.

Ecology and habitat

In the lagoon, on pinnacles.



***Callyspongia* sp. (2712) (-)**

Order

Haplosclerida

Family

Callyspongiidae

External characters

Encrusting, soft,

Dimensions

~ 5 cm large.

Colour

Beige

Distribution

In French Polynesia: Austral archipelago is.

Ecology and habitat

At the bottom of a bay, on a slope with alive corals, debris and coral mud



Callyspongia sp. (4885) (OTU QM4885)

Order

Haplosclerida

Family

Callyspongiidae

External characters

Encrusting, soft, spongy

Colour

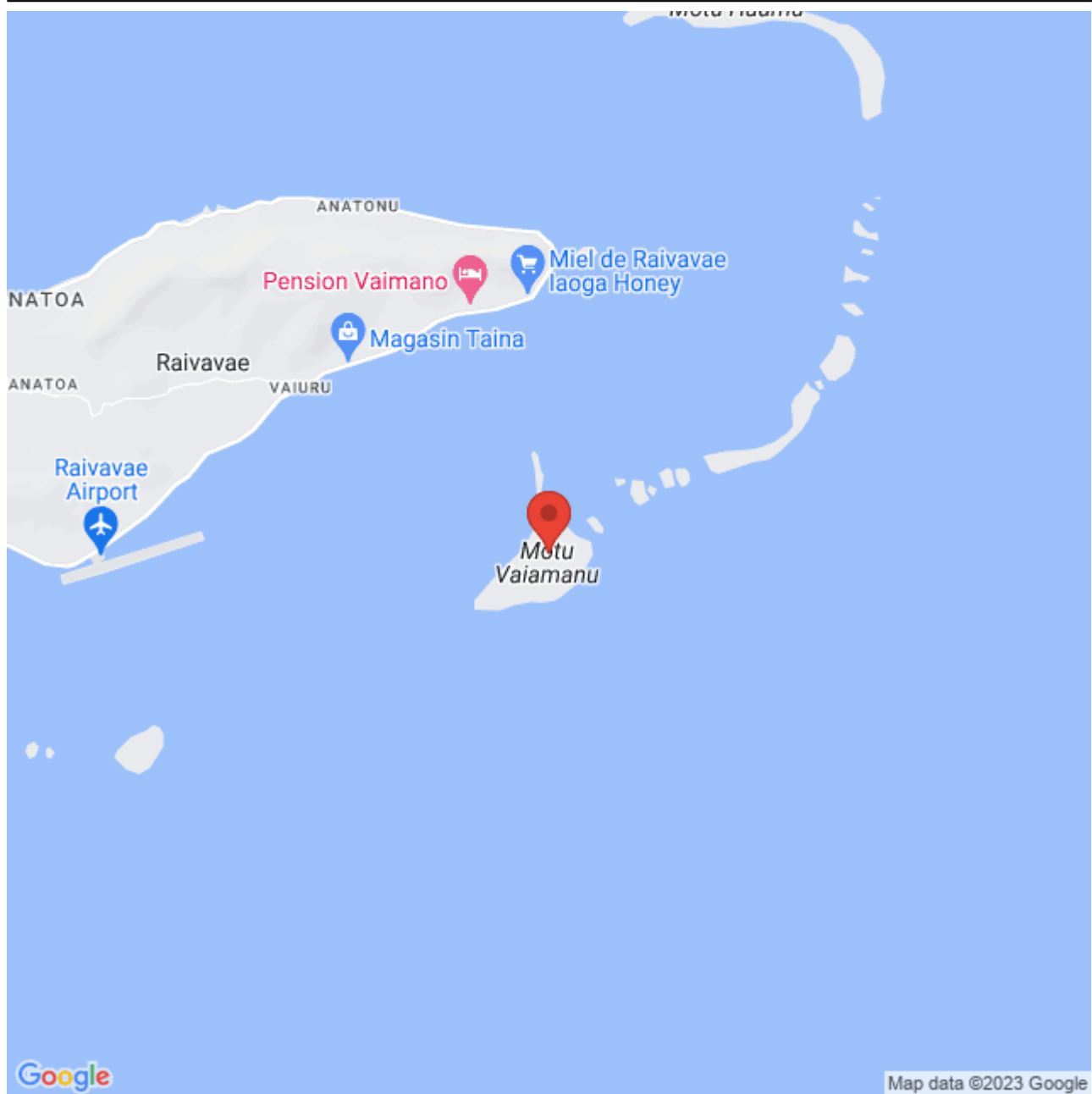
Purple

Distribution

In French Polynesia: Austral archipelago is.

Ecology and habitat

In the bottom of the lagoon, on muddy sand slope



***Dactylia* sp. (OTU QM4863) (OTU QM4863)**

Order
Haplosclerida

Family
Callyspongiidae



External characters

bulbous, thinly encrusting

Colour

pale blue alive

Skeletal Characters

Oscules	moderately large, abundant, flush with upper surface
Texture	soft, spongy
Surface_Ornamentation	even, microscopically reticulate, highly porous
Ectosomal_Skeleton	no special skeleton
Choanosomal_Skeleton	heavily cored with oxeas of one size class – lots of extra oxeas scattered densely throughout mesohyl – incorporates small amounts of sandy debris – heirarchical fibre reticulation
Megascleres	oxeas of a single size class
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

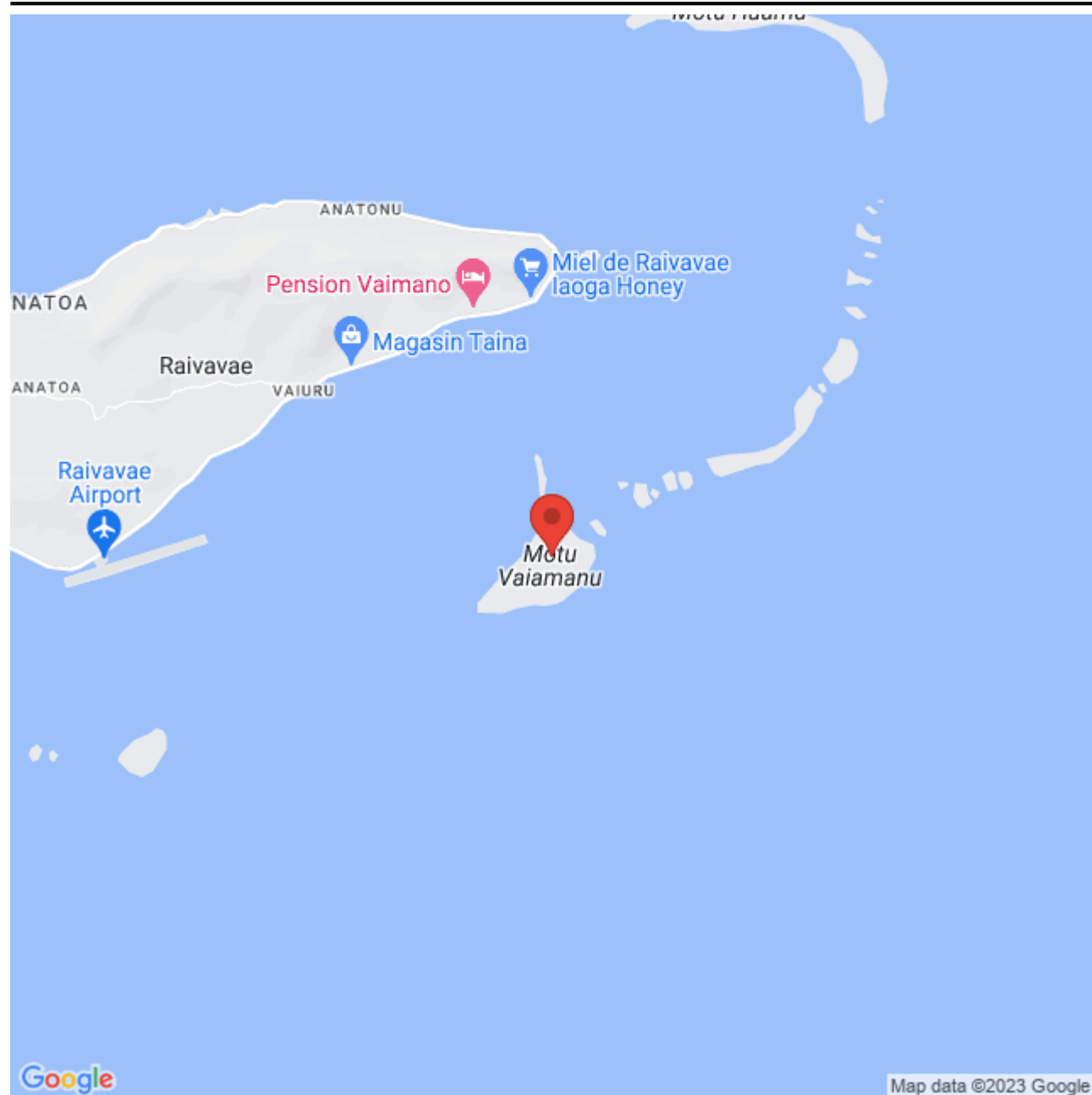
Distribution

In French Polynesia: Austral islands

Ecology and habitat

In the lagoon, on coral sand, channel bottom.

JNA Hooper (2014). QM4863 *Dactylia* sp. (OTU QM4863) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Siphonochalina* sp. (OTU QM2754) (OTU QM2754)**

Order
Haplosclerida

Family
Callyspongiidae



External characters

Stoloniferous, spreadsing over substrate, thin cylindrical branches, stringy.

Colour

Dark brown.

Skeletal Characters

Oscules	Fairly large oscules.
Texture	Slimy.
Surface_Ornamentation	Finely conulose, even surface, membranous.
Ectosomal_Skeleton	Irregular, tangential. Some pigment cells on the outer membrane.
Choanosomal_Skeleton	Irregular reticulaiton of primary and secondary fibres which are indistinct. Fibres are fine, and cored with uni-to paucispicular of fine oxeas. In places, the coring spicules are sparse, some are not bound in fibres and ljay scattered in the mesohyl. Mesohyl collagen is light and homogeneous.
Megascleres	Oxeas (strongylote)(80um).
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

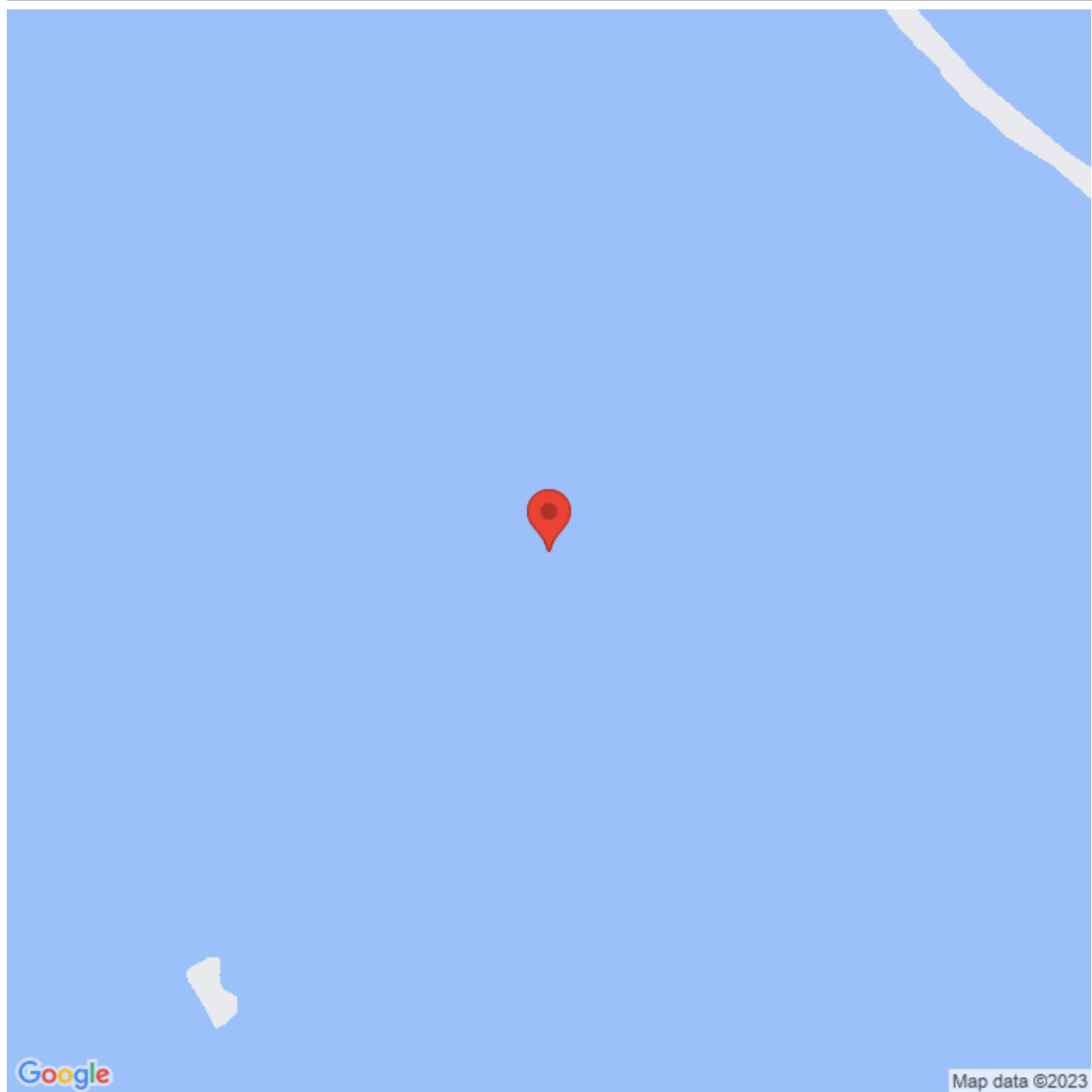
In French Polynesia: Tuamotu islands

Pacific ocean: Fiji

Ecology and habitat

Outer reef slope

QM2754 *Siphonochalina* sp. (OTU QM2754) . In: Hall, K.A. & Hooper, J.N.A. (2014)
SpongeMaps: an online community for taxonomy and identification of sponges. (Available at
<http://www.spongemaps.org>).



Family: Chalinidae

***Chalinula* sp. (OTU QM0149) (OTU QM0149)**

Order
Haplosclerida

Family
Chalinidae



External characters

Partially burrowing; subspherical, massive, buttressed base (50mm diameter, 100mm high), with small tapering fistules on apex (up to 30mm long, 10mm basal diameter) with basal portion buried beneath the sediment and fistules protruding through the sand.

Colour

Colour. Yellow-brown in life (Munsell 7.5YR 7/8), pale brown in ethanol.

Skeletal Characters

Oscules	Oscules. Large, up to 8mm diameter, on apex of fistules.
Texture	Compressible, harsh, easily torn; sand and coral rubble embedded on under surface and outer surface of base. .
Surface_Ornamentation	Irregular, transparent and hispid
Ectosomal_Skeleton	Multispicular tracts of larger choanosomal styles, up to 3 spicules abreast, lie tangential to the surface, and irregular bundles of smaller ectosomal styles arranged mostly paratangentially to the surface as plumose brushes. Collagen present but light in ectosomal region.

Choanosomal_Skeleton	Choanosomal skeleton. In deeper regions of the sponge the skeleton is a disorganised halichondrioid criss-cross of both unispicular and multispicular tracts, containing 5-10 spicules abreast, composed of larger choanosomal styles; in the subectosomal region tracts become more wide-meshed, paratangential, producing a cavernous subectosomal region; in fistules choanosomal tracts more compressed in axial region, cavernous towards the periphery; cavities are at least as wide as the spicule bundles, up to 400µm in basal region, 1.5mm in fistules. Choanosomal spicule tracts predominantly composed of larger styles, whereas smaller (ectosomal) styles are also scattered throughout the mesohyl. Collagen moderately abundant in axial, sparse in peripheral skeleton; no spongin fibres observed.
Megascleres	Spicules. Larger choanosomal styles variable in size, straight or slightly curved at centre, fusiform with sharp points or very slightly stepped points, tapering to a hastate rounded base which is smaller in diameter than the centre of spicule (length 355-(521.6)-775µm, width 8-(19.2)-32µm). Smaller ectosomal styles fusiform, sharply pointed with evenly rounded bases (length 153-(246.5)-330µm, width 6-(9.1)-12µm).
Microscleres	nil.
Mudmap_Author	JNA Hooper
Mudmap_Editor	JNA Hooper

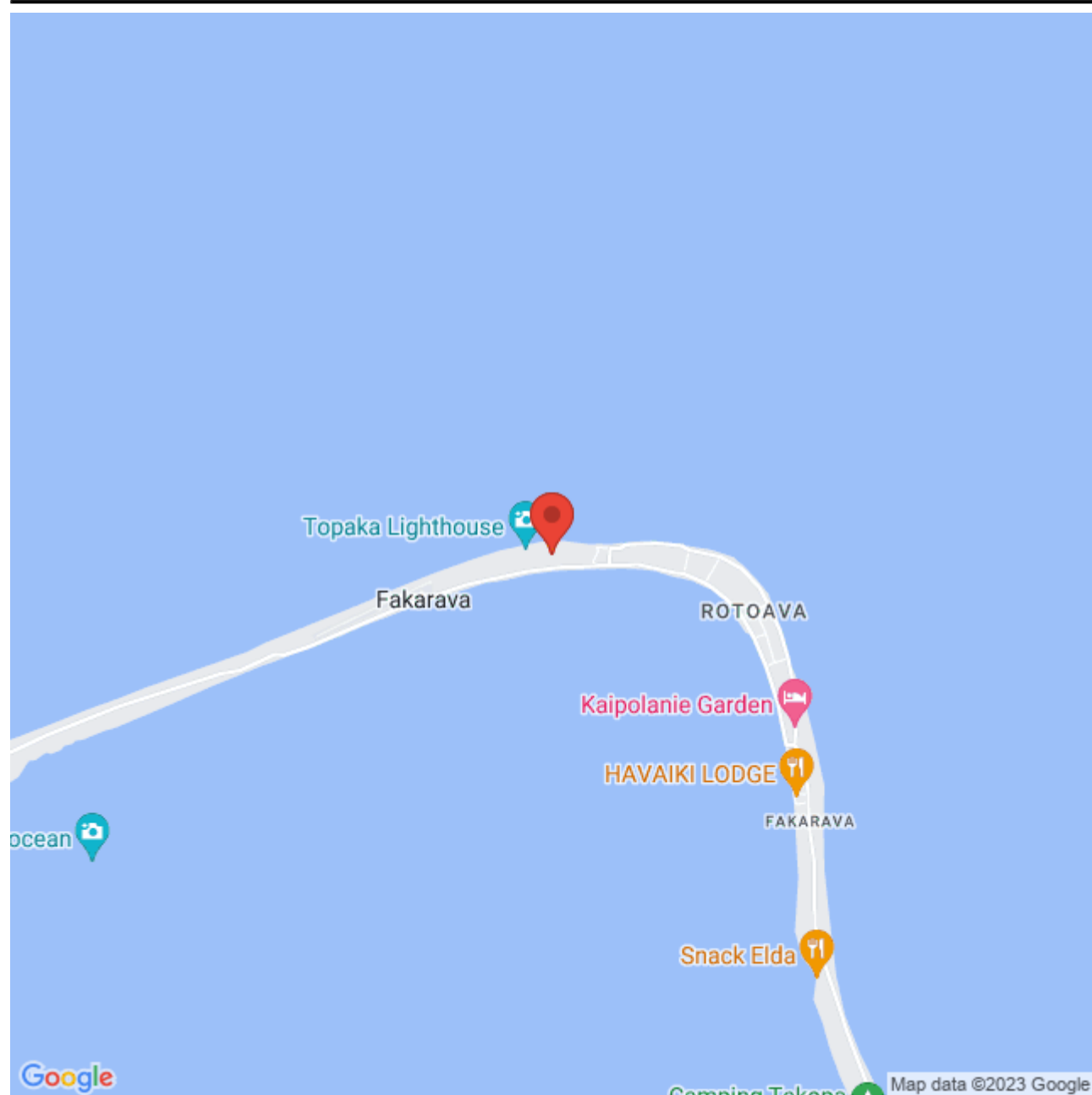
Distribution

In French Polynesia: Tuamotu archipelago is.

Ecology and habitat

On the outer reef slope. Burrowing in sand, mud, coral rubble, shell grit substrates; 4-72m depth range.

JNA Hooper (2014). QM0149 *Chalinula* sp. (OTU QM0149) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Chalinula* sp. (OTU QM4223) (OTU QM4223)**

Order
Haplosclerida

Family
Chalinidae



External characters

Bulbous encrusting

Colour

Pinkish alive, white in ethanol with black contaminants throughout sponge.

Skeletal Characters

Oscules	Large on apex of bulbs
Texture	Brittle, compressible.
Surface_Ornamentation	Smooth
Megascleres	Oxeas, 2 size classes
Microscleres	Nil
Mudmap_Author	J Hooper
Mudmap_Editor	J Hooper

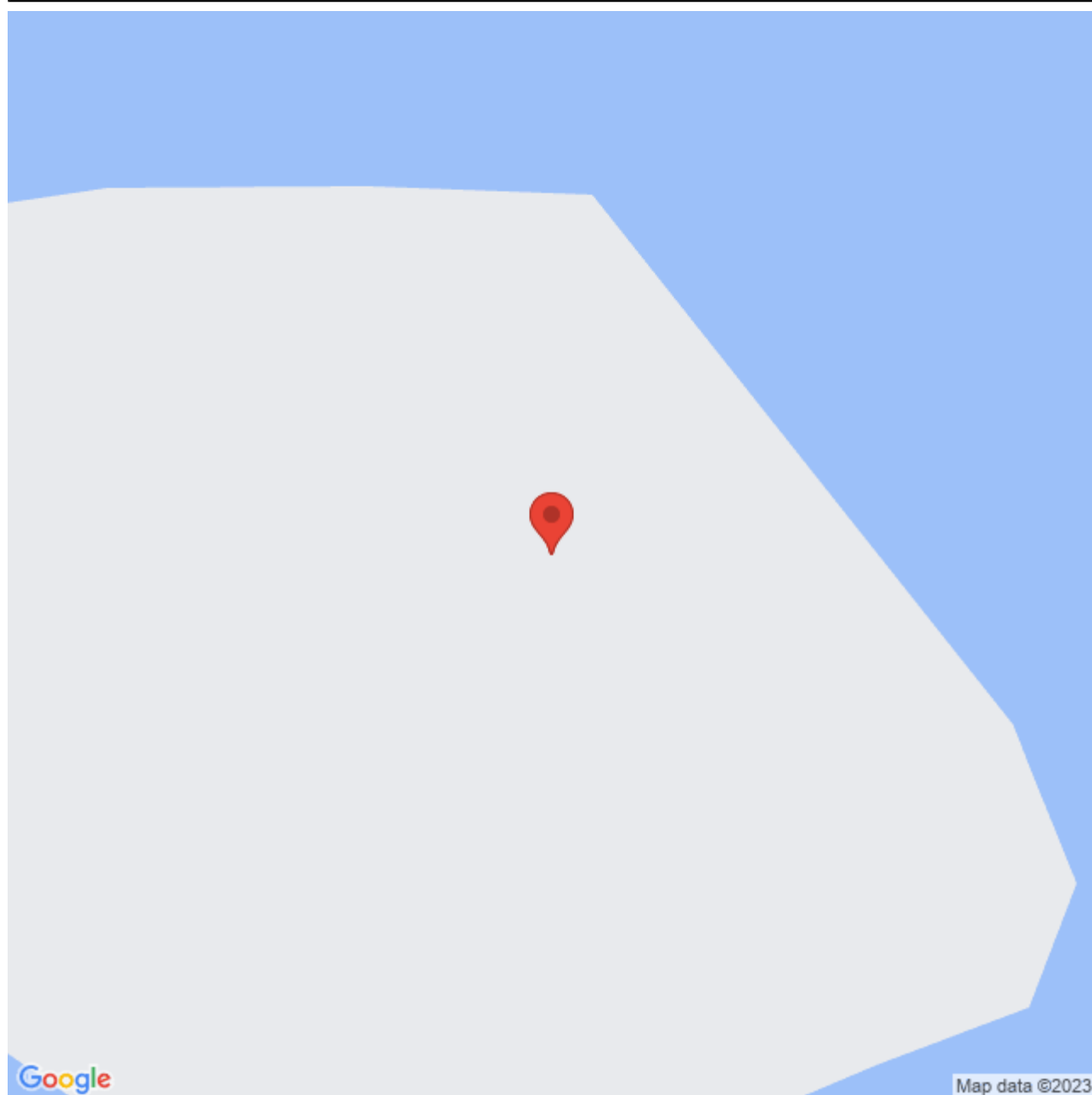
Distribution

In French Polynesia: Austral archipelago is.

Ecology and habitat

Under the rocks, on a flat bottom of slab.

J Hooper (2014). QM4223 *Chalinula* sp. (OTU QM4223) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



Haliclona (Haliclona) sp. (OTU QM0854) (OTU QM0854)

Order
Haplosclerida

Family
Chalinidae



External characters

lobate, bulbous; on branching base.

Colour

brown, encrusted in life; interior pale, exterior light green or brown-olive (due to algae) in ethanol.

Skeletal Characters

Oscules	small, on swollen bulbs, scattered.
Texture	firm, breaks easily.
Surface_Ornamentation	smooth, slightly bulbous.
Ectosomal_Skeleton	irregular brushes of oxeads, almost in 3-dimensional reticulation.
Choanosomal_Skeleton	tight myxillid-like renieroid reticulation of oxeads; oxeads singly and in multispicular tracts.
Megascleres	oxeads: stepped ends, $130 \times 8 \text{ ?m}$.
Microscleres	nil.
Mudmap_Author	Queensland Museum
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Society and Tuamotu islands

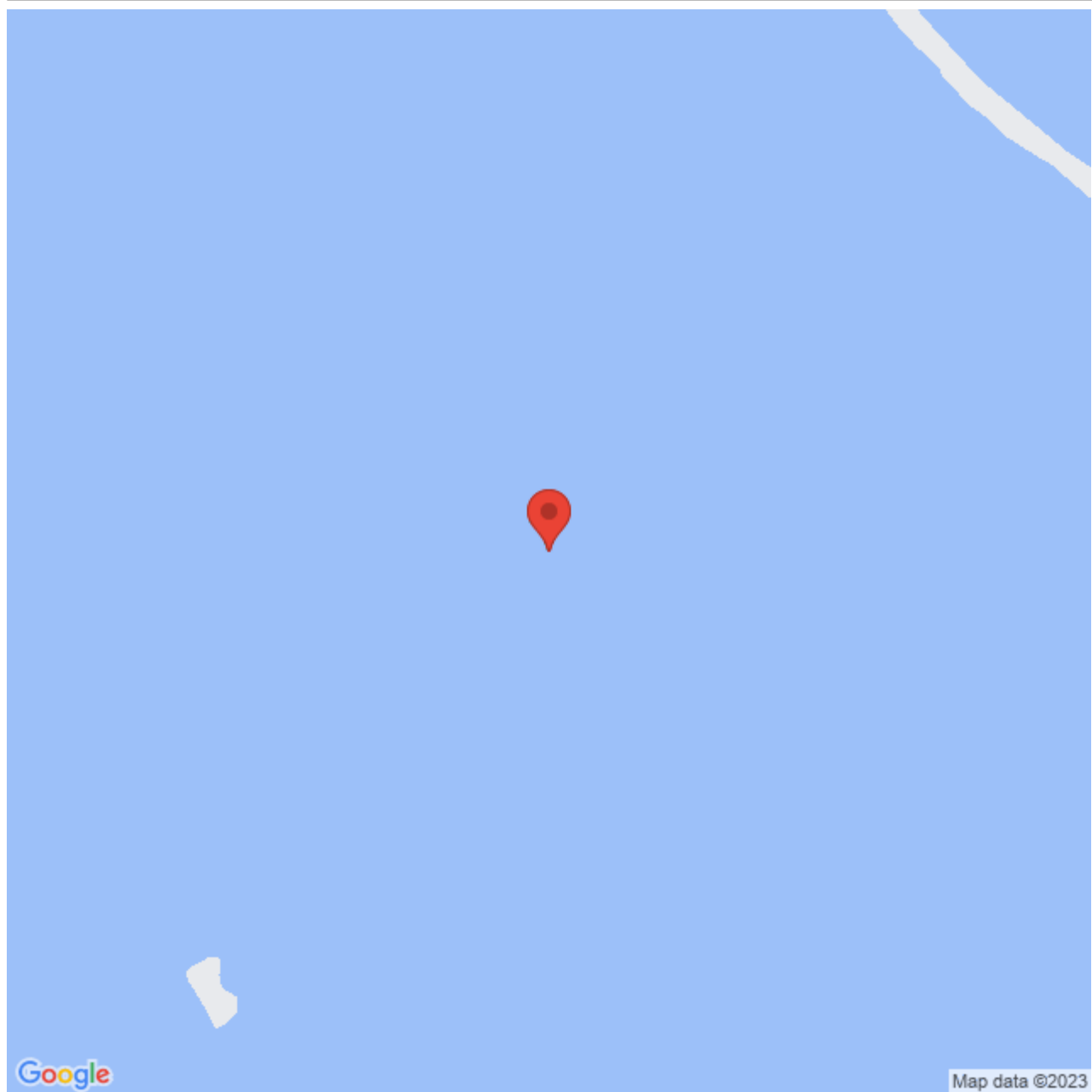
Pacific Ocean: Australia, Papua New Guinea

Indian Ocean: Malaysia

Ecology and habitat

Outer reef slope

Queensland Museum (2014). QM0854 Haliclona (Haliclona) sp. (OTU QM0854) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Haliclona (Haliclona) sp. (OTU QM4468) (OTU QM4468)

Order
Haplosclerida

Family
Chalinidae



External characters

thickly encrusting.

Colour

purple in situ; beige in ethanol.

Skeletal Characters

Oscules	terminal to small bulbs, scattered across surface.
Texture	very soft, fragile, falls apart in ethanol.
Surface_Ornamentation	no observations.
Ectosomal_Skeleton	tangential unispicular layer of oxeads supported by unispicular isodictyal reticulation.
Choanosomal_Skeleton	unispicular isodictyal reticulation.
Megascleres	oxeads: 2 width classes.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

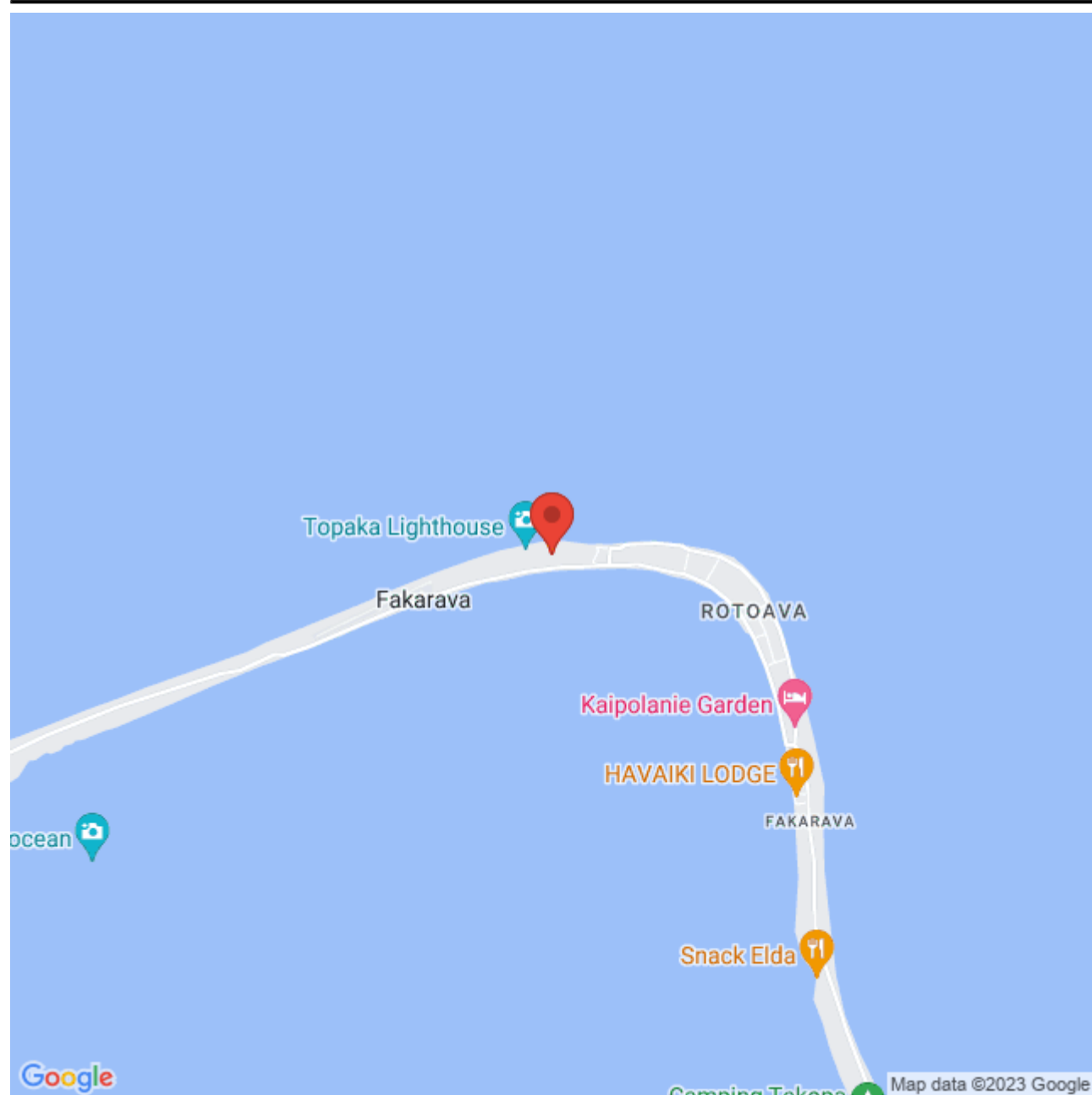
In French Polynesia: Tuamotu islands

Indian Ocean: Malaysia

Ecology and habitat

Outer reef slope

QM4468 Haliclona (Haliclona) sp. (OTU QM4468) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Haliclona (reniera) sp. (4900) (OTU QM4900)

Order
Haplosclerida

Family
Chalinidae



External characters

Encrusting with large oscules, smooth, flexible

Colour

Green – Grey

Distribution

In French Polynesia: Austral archipelago is.

Ecology and habitat

In the bottom of a bay, on dead corals.



Haliclona (Reniera) sp. (OTU QM2555) (OTU QM2555)

Order
Haplosclerida

Family
Chalinidae



External characters

Encrusting bulbous, stoloniferous.

Colour

Beige/brown.

Skeletal Characters

Oscules	At tip of stolons or fistule-like projections.
Texture	Soft, compressible.
Surface_Ornamentation	Porous.
Ectosomal_Skeleton	Very slightly hispid, some primary fibres.
Choanosomal_Skeleton	Light reticular, regular spongin network sparsely cored by one, and sometimes a couple of spicules.
Megascleres	Oxeas 70 – 80um.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

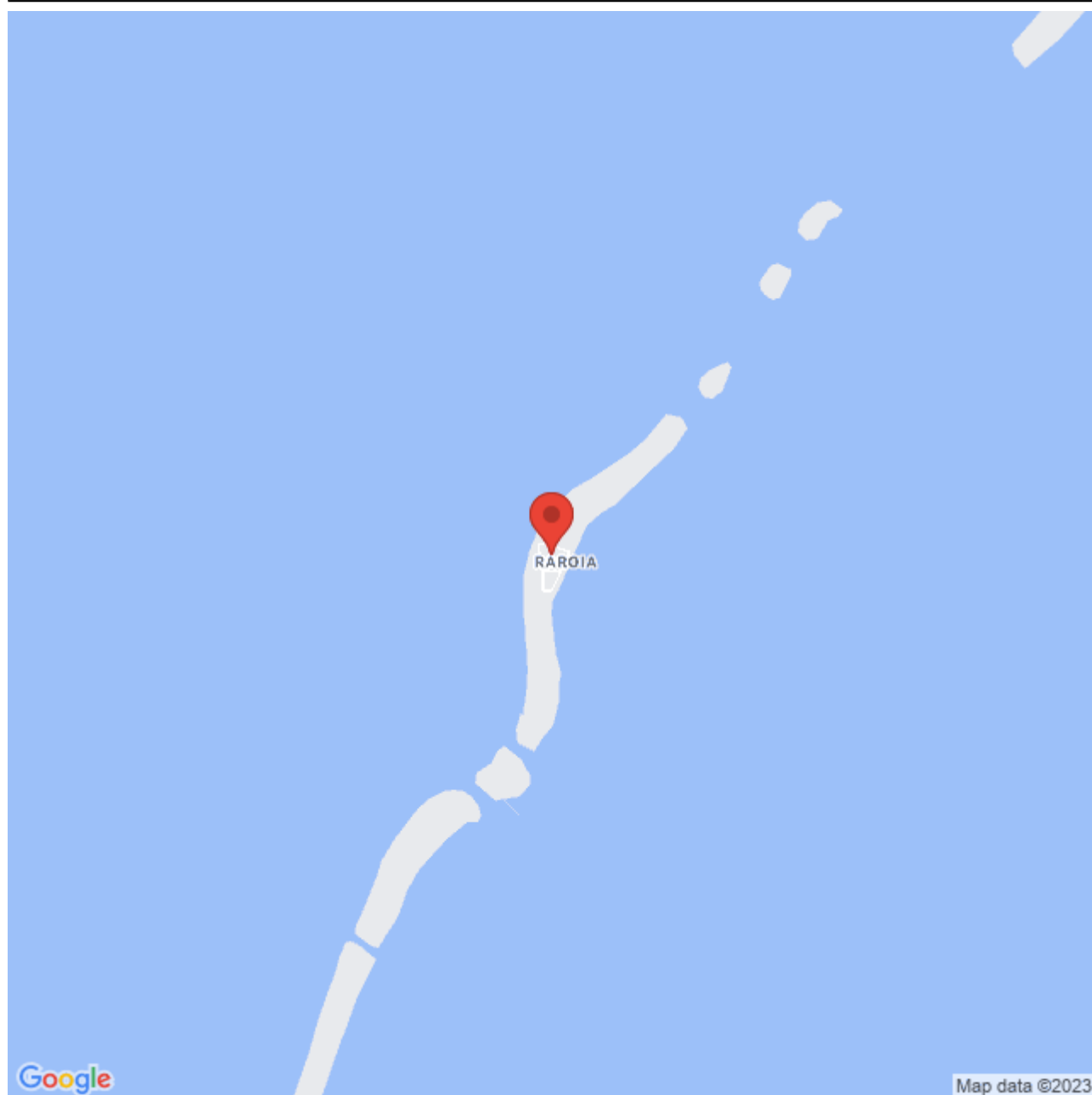
In French Polynesia: Tuamotu islands

Pacific Ocean: Australia, Vanuatu

Ecology and habitat

Outer rim of the pass. Outer reef slope.

QM2555 Haliclona (Reniera) sp. (OTU QM2555) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Haliclona* sp (OTU QM4857) (OTU QM4857)**

Order
Haplosclerida

Family
Chalinidae



External characters

irregularly digitate-lobate, club-like lobate branches

Colour

red alive

Skeletal Characters

Oscules	many large oscules scattered over the surface flush with surface
Texture	firm, flexible
Surface_Ornamentation	macroscopically lumpy, microscopically smooth
Ectosomal_Skeleton	ectosome with protruding single oxeads and single tangential oxeads
Choanosomal_Skeleton	choanosome regularly isodictyal reticulate fibre skeleton forming rectangular or oval meshes and with multispicular ascending tracts and unispicular or paucispicular transverse tracts, very light collagen in mesohyl
Megascleres	hastate oxeads or strongyloxeas, with younger forms fusiform
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

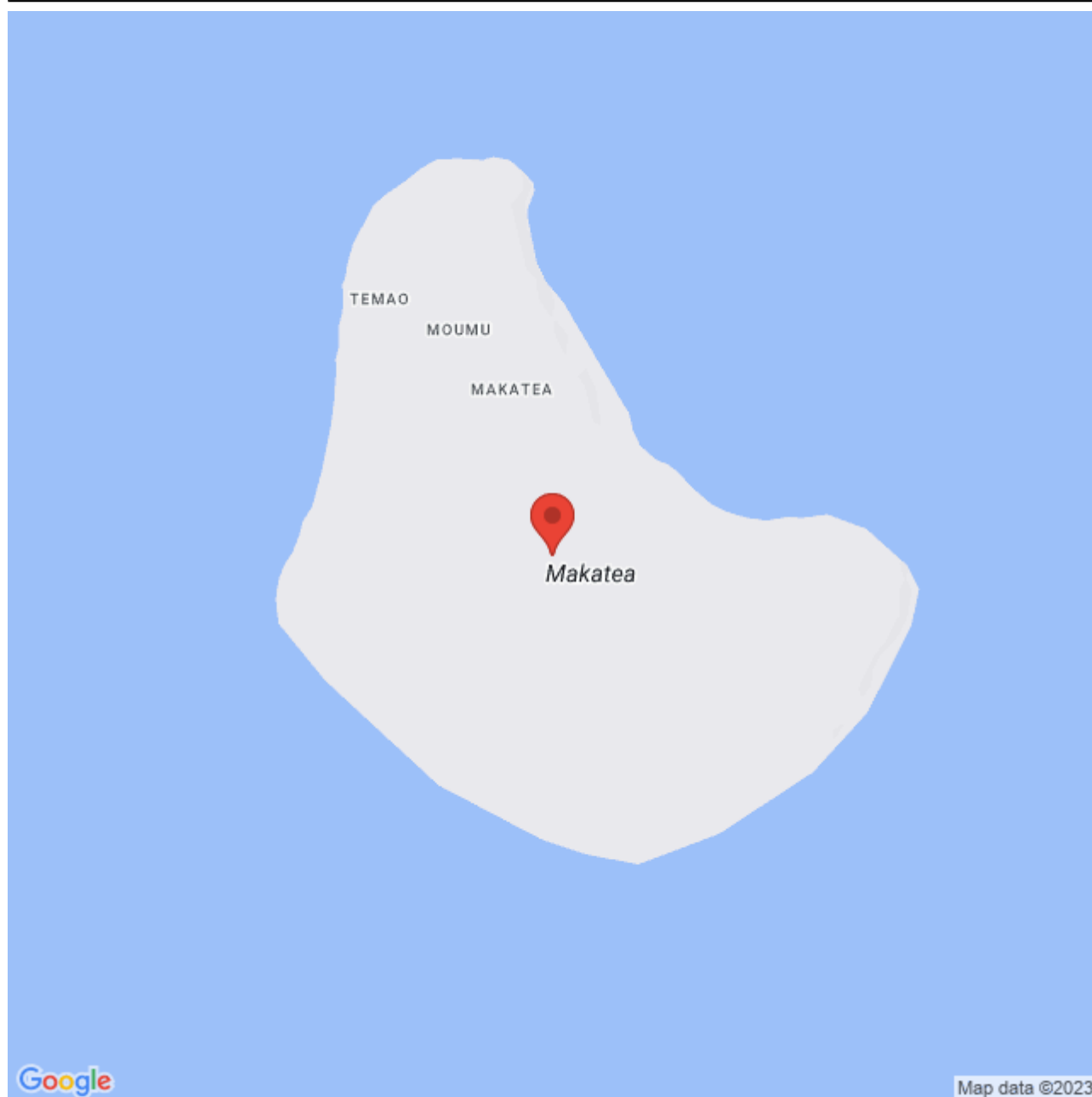
Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

In the lagoon, on pinnacles. Outer rim of the pass. Fringing reef. Outer reef slope.

JNA Hooper (2014). QM4857 Haliclona sp (OTU QM4857) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Haliclona* sp (OTU QM4858) (OTU QM4858)**

Order
Haplosclerida

Family
Chalinidae



External characters

irregularly digitate lobate branching with many tendril-like sub-branches forming a nearly tangled branching mass

Colour

dark red on deck

Skeletal Characters

Oscules	oscles large and on the apex of low conules, prominently raised above the surface
Texture	rubbery, soft
Surface_Ornamentation	macroscopically lumpy, microscopically smooth
Ectosomal_Skeleton	ectosomal skeleton with protruding sparse brushes or single oxeads projecting from erect terminal fibres, and with tangential oxeads in terminal fibres parallel to the surface
Choanosomal_Skeleton	skeleton a well developed reticulation of spongin fibres; ; choanosomal fibres with poorly differentiated ascending primary and transverse connecting fibres cored by 2 or few versus 1 oxead abreast, respectively; poor collagen in mesohyl
Megascleres	Oxeads
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

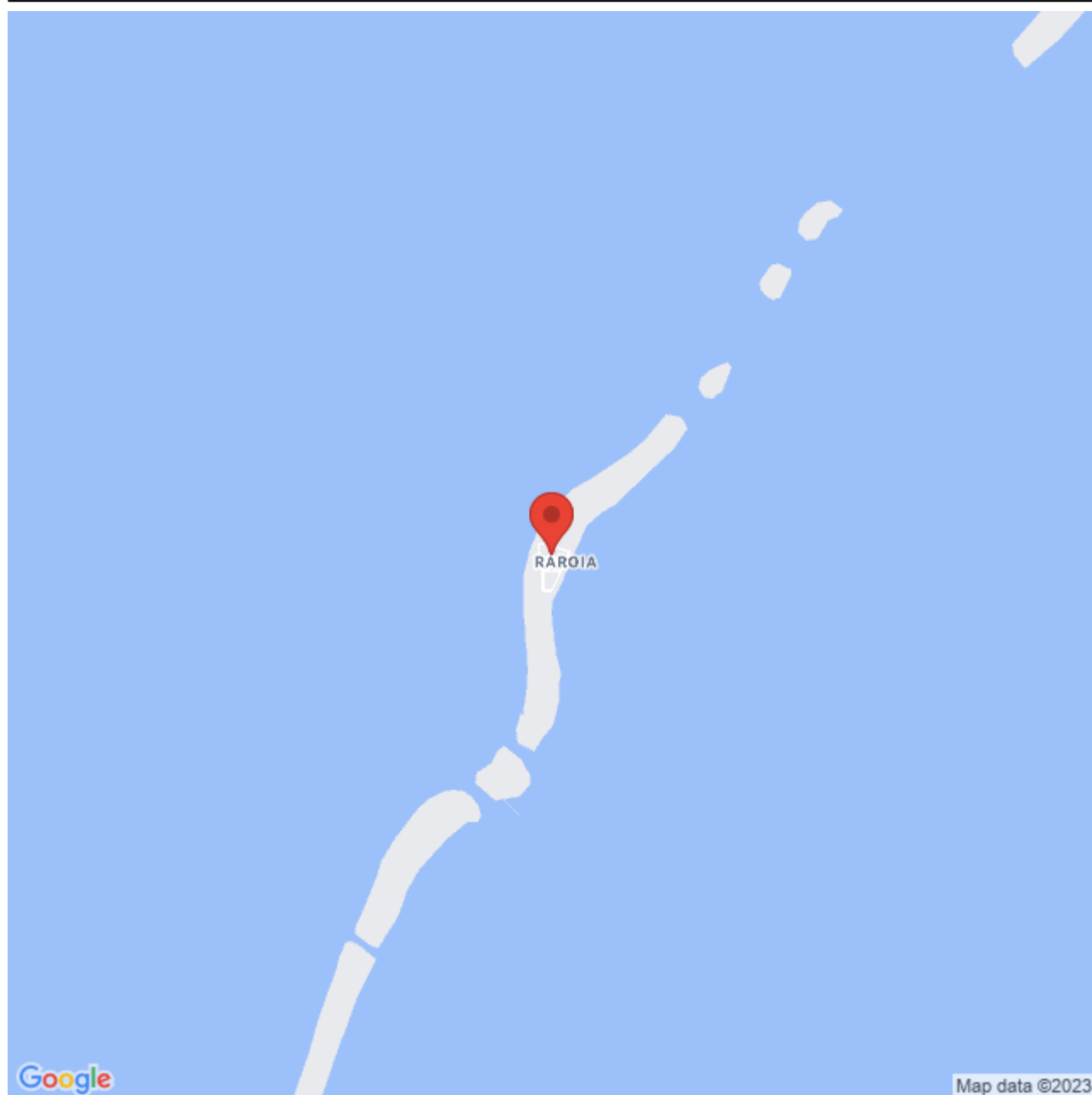
Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

In the lagoon, on pinnacles.

JNA Hooper (2014). QM4858 *Haliclona* sp (OTU QM4858) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Haliclona sp. (4899) (OTU QM4899)

Order
Haplosclerida

Family
Chalinidae

External characters

Spheric like a ball, spongy, smooth

Dimensions

< 10 cm Ø

Colour

redish

Distribution

In French Polynesia: Society is.

Ecology and habitat

In caves.



***Haliclona* sp. (OTU QM2309) (OTU QM2309)**

Order
Haplosclerida

Family
Chalinidae



External characters

massive, subcylindrical.

Colour

light tan brown in life; cream-coloured in ethanol.

Skeletal Characters

Oscules	sieve plates present, variable in size, 1–5mm (d).
Texture	firm, barely compressible, resilient, friable, chalky, easily broken.
Surface_Ornamentation	gritty, sandpapery feel; ectosome easily rubbed away.
Ectosomal_Skeleton	not very well distinguished from choanosome; unspecialised; brushes of oxeads penetrate surface.
Choanosomal_Skeleton	isodictyal reticulation of oxeads, forming irregular meshes; spongin present at nodes; unispicular tracts ascend to ectosome.
Megascleres	oxeads: 3 classes class 1: stout, medium length, slightly curved, ends sharply pointed, very common, 130–150 × 6 µm; class 2: slender, strongylote, with one rounded end and other pointed, rarer than class 1 oxeas, ~110 × 2 µm; class 3: small, stout, ends sharply pointed, 40–45 × 2 µm.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	Kathryn Hall

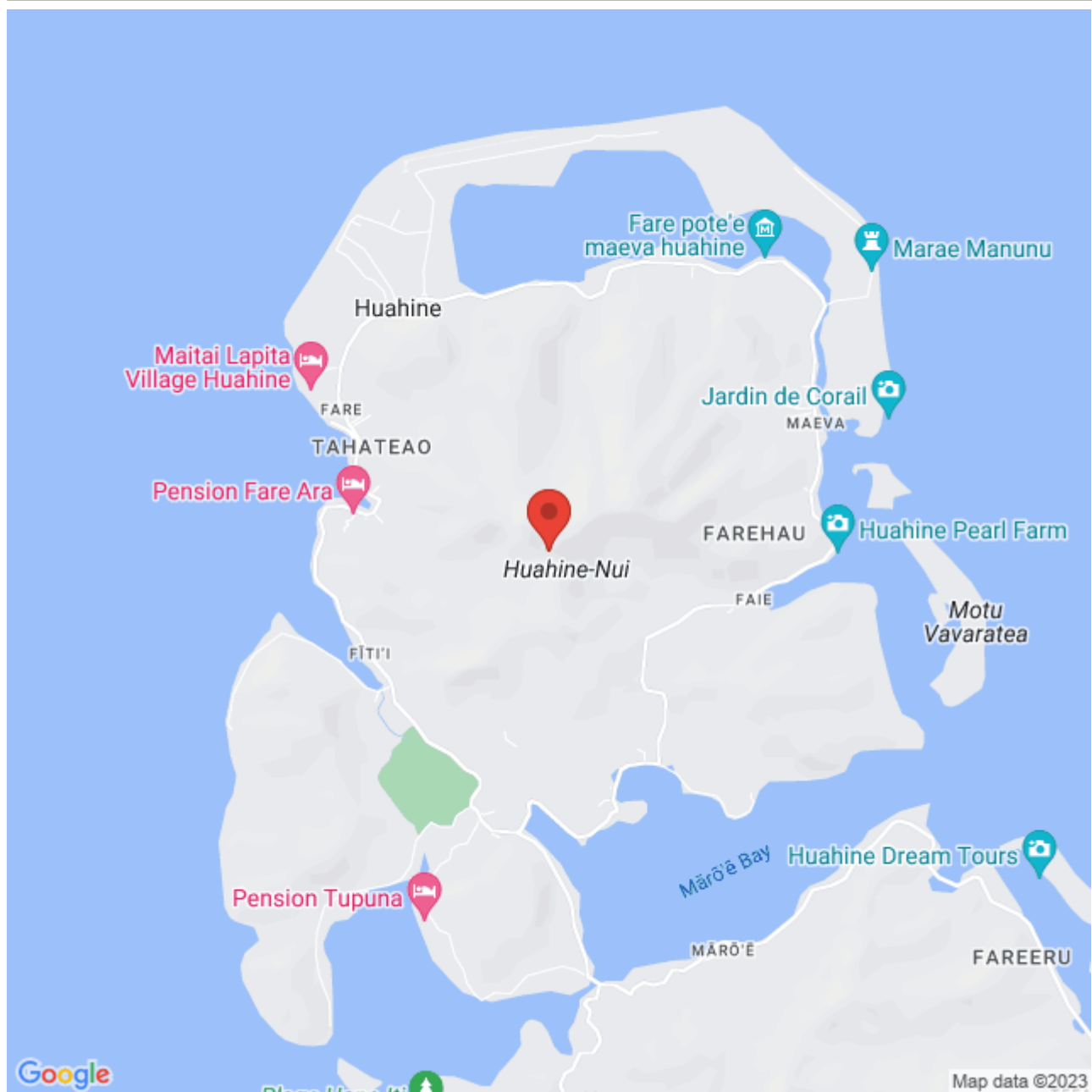
Distribution

In French Polynesia: Society and Tuamotu islands

Ecology and habitat

Outer reef slope and in the lagoon on pinnacles

QM2309 *Haliclona* sp. (OTU QM2309) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Haliclona* sp. (OTU QM4386) (OTU QM4386)**

Order
Haplosclerida

Family
Chalinidae



External characters

tendrill like cylindrical digits, slightly lumpy, arising from a common cylindrical base of tangled digits, with digits tapering towards their ends

Colour

pinkish-salmon alive with whitish oscular rims; beige on deck and in ethanol

Skeletal Characters

Oscules	very small, on lateral sides of digits
Texture	compressible, soft
Surface_Ornamentation	even, unornamented
Ectosomal_Skeleton	paucispicular tangential layer of oxeas, with some primary ascending tracts protruding through the surface, and with some darker collagen in the ectosomal skeleton
Choanosomal_Skeleton	semi-regular reticulation of multispicular ascending tracts and uni- or paucispicular transverse connecting tracts of oxeas, forming more-or-less rectangular meshes; moderate collagen throughout mesohyl
Megascleres	oxeas of a single size category but with a few juvenile forms present also; sharply pointed and slightly telescoped points
Microscleres	nil
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

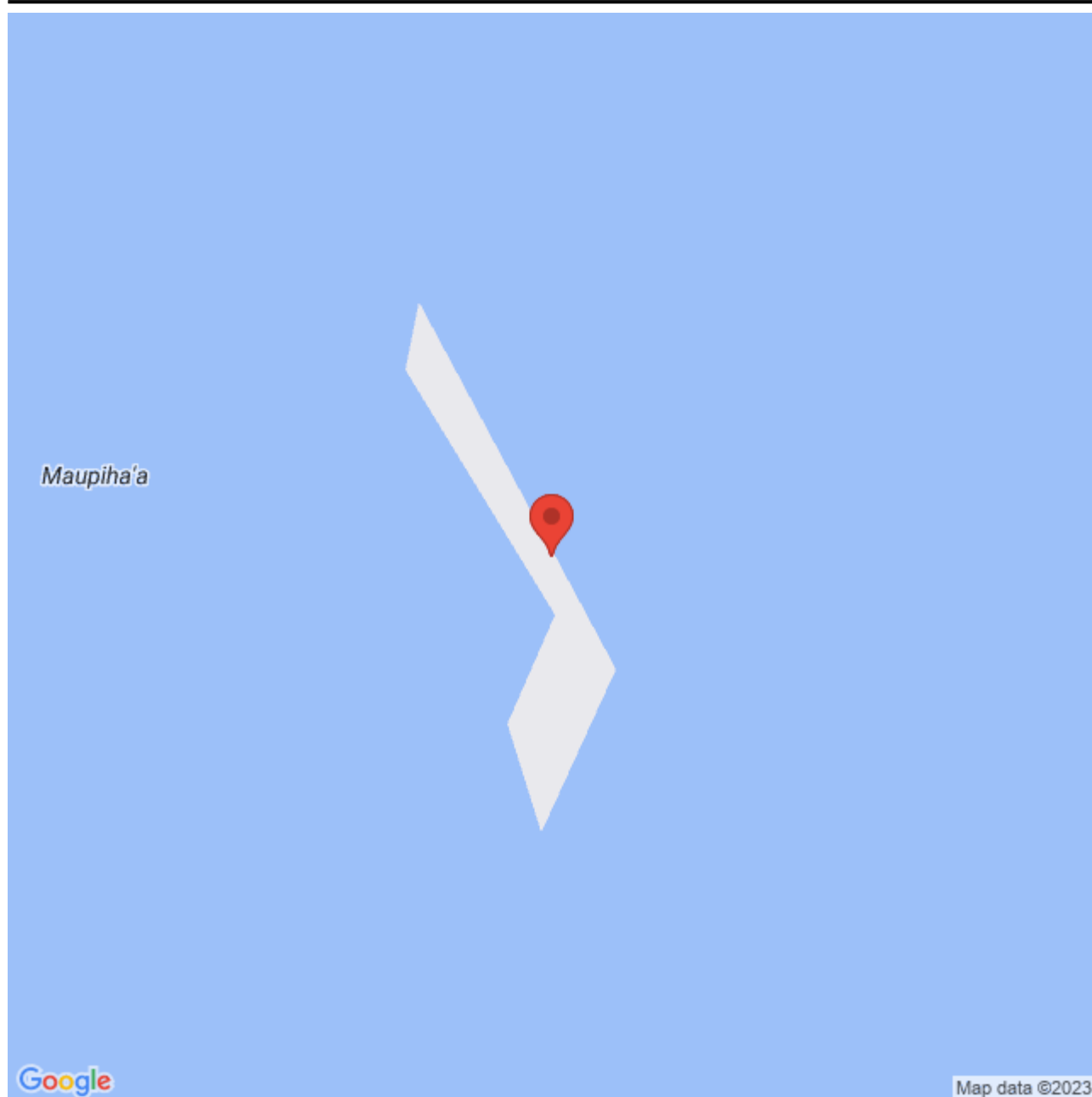
In French Polynesia: Society and Tuamotu islands

Pacific Ocean: Fiji

Ecology and habitat

Outer reef slope.

J Hooper (2014). QM4386 Haliclona sp. (OTU QM4386) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Haliclona* sp. (OTU QM4715) (OTU QM4715)**

Order
Haplosclerida

Family
Chalinidae



External characters

massive, flabelliform to lamelliform, vaguely calyciform folding into very loose cup-shape; lamella ~5 mm thick.

Colour

tan to pale pink in life; pale pinkish beige in ethanol.

Skeletal Characters

Oscules	small, scattered densely on both surfaces, <1 mm (d).
Texture	soft, compressible, resilient, not fragile, but easily torn.
Surface_Ornamentation	very smooth, with slight feeling of emory, gritty.
Ectosomal_Skeleton	penetrated by brushes of choanosomal oxeads and microxeads; many microxeads incorporated at surface.
Choanosomal_Skeleton	confused isodictyal reticulation in deeper choanosome; ascending unispicular tracts, tend to paucispicular tracts nearer to surface; microxeads abundant at internodes of oxeads in upper parts of tracts; little spongin at nodes; some foreign spicules incorporated irregularly.
Megascleres	oxeads: 3 classes class 1: stout, slightly curved, with sharply tapering points, in deeper choanosome, 120–150 × 6–8 ?m; class 2: slender, slightly curved, with sharply tapering points, in tracts, ~130 × 4 ?m; class 3: microxeads, fine, present at surface, 35–40 × 2 ?m.
Microscleres	nil.
Mudmap_Author	K Hall

Mudmap_Editor	Kathryn Hall
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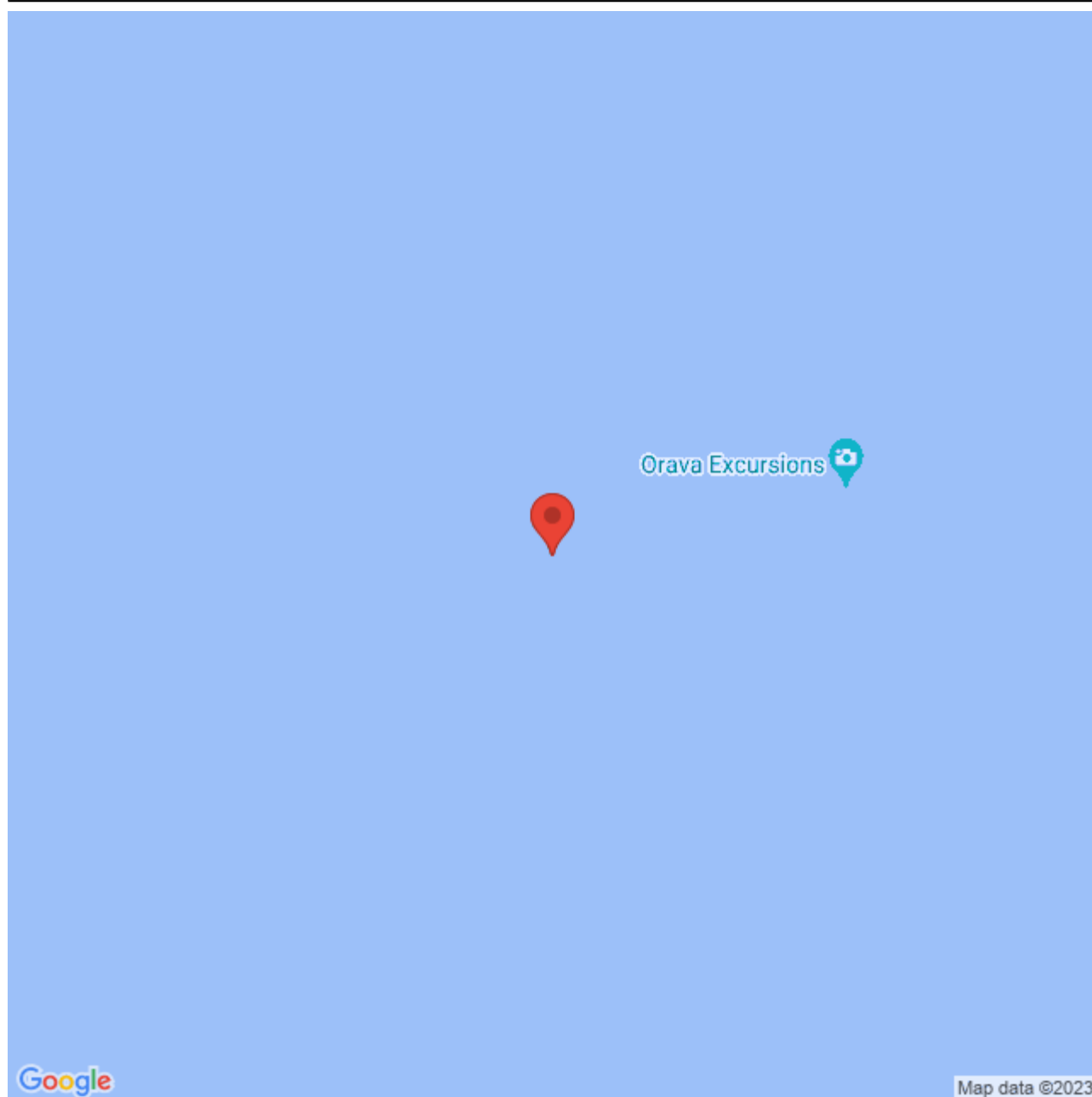
Distribution

In French Polynesia: Society and Tuamotu islands

Ecology and habitat

Outer reef slope

QM4715 *Haliclona* sp. (OTU QM4715) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Haliclona* sp. (OTU QM4871) (OTU QM4871)**

Order
Haplosclerida

Family
Chalinidae



External characters

low rounded bulbous lumps fused and forming a tubular growth form that is encrusting on coral rubble

Colour

pale beige alive, darker brown on deck

Skeletal Characters

Oscules	each bulb with a small terminal oscule, not raised above the surface
Texture	harsh, compressible
Surface_Ornamentation	surface smooth and even
Ectosomal_Skeleton	ectosomal skeleton membranous, with uncured secondary spongin fibres tangential to the surface and occasional primary spongin fibres with none, uni- or paucispicular tracts ascending to and slightly protruding through surface as small microconules
Choanosomal_Skeleton	choanosomal skeleton composed of thicker primary fibres and thinner secondary fibres either with or without unispicular tracts, together forming irregular oval to rectangular, elongate or triangular meshes, relatively cavernous, and with well developed collagen fibres, and very light collagen mesohyl
Megascleres	megascleres vestigial very thin, short to medium length ranging from oxeas to strongyloxeas, restricted to within fibres
Microscleres	microscleres 2 size classes of c-sigmas
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Ecology and habitat

In caves

JNA Hooper (2014). QM4871 *Haliclona* sp. (OTU QM4871) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Haliclona* sp. (OTU QM4872) (OTU QM4872)**

Order
Haplosclerida

Family
Chalinidae



External characters

small fragile globular sponge with an apical ridge

Colour

pale yellow alive, pale brown on deck

Skeletal Characters

Oscules	several small raised oscules with transparent lips on apex of ridge
Texture	soft, compressible
Surface_Ornamentation	macroscopically smooth
Ectosomal_Skeleton	ectosomal skeleton isodictyal with uni-, bi- or occasionally trispicular triangular meshes that are more or less ordered
Choanosomal_Skeleton	underlying choanosomal skeleton lax and disorganised with vaguely differentiated primary and secondary tracts, tightly packed meshes, and moderate collagen in mesohyl
Megascleres	oxeas sharply pointed, slightly curved, of a single size category
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Ecology and habitat

In caves

JNA Hooper (2014). QM4872 Haliclona sp. (OTU QM4872) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Haliclona* sp. (OTU QM4873) (OTU QM4873)**

Order
Haplosclerida

Family
Chalinidae



External characters

delicate tubular lobate growth form

Colour

pastel tangernine orange alive, khaki brown on deck

Skeletal Characters

Oscules	moderately large oscules with raised transparent membranous lips and aquiferous system visible on the external surfaces of the sponge
Texture	soft, compressible
Surface_Ornamentation	smooth even surface except for external aquiferous system
Ectosomal_Skeleton	undifferentiated from choanosomal skeleton
Choanosomal_Skeleton	ectosomal and choanosomal skeletons an isodictyal reticulation of uni- or occasionally bispicular triangular meshes without any differentiation between the surface and axial regions; spongin fibres barely visible and collagen moderately light with few interstitial spicules in mesohyl
Megascleres	oxeas of a single size class, straight, sharply pointed, a few juvenile forms also present
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Ecology and habitat

In caves

JNA Hooper (2014). QM4873 Haliclona sp. (OTU QM4873) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Niphatidae

***Amphimedon* sp. (OTU QM2641) (OTU QM2641)**

Order
Haplosclerida

Family
Niphatidae



External characters

Long cylindrical tangled branches, tapering to sharp points.

Colour

Yellow/peach.

Skeletal Characters

Texture	Elastic.
Ectosomal_Skeleton	Hispid -produced by spicule -cored spongin projecting through to ectosome.
Choanosomal_Skeleton	Regular reticulate mesh of spongin fibres, cored by paucispicular tracts of oxeas, few free spicules.
Megascleres	Oxeas (120 – 150µm).
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	K Hall

Distribution

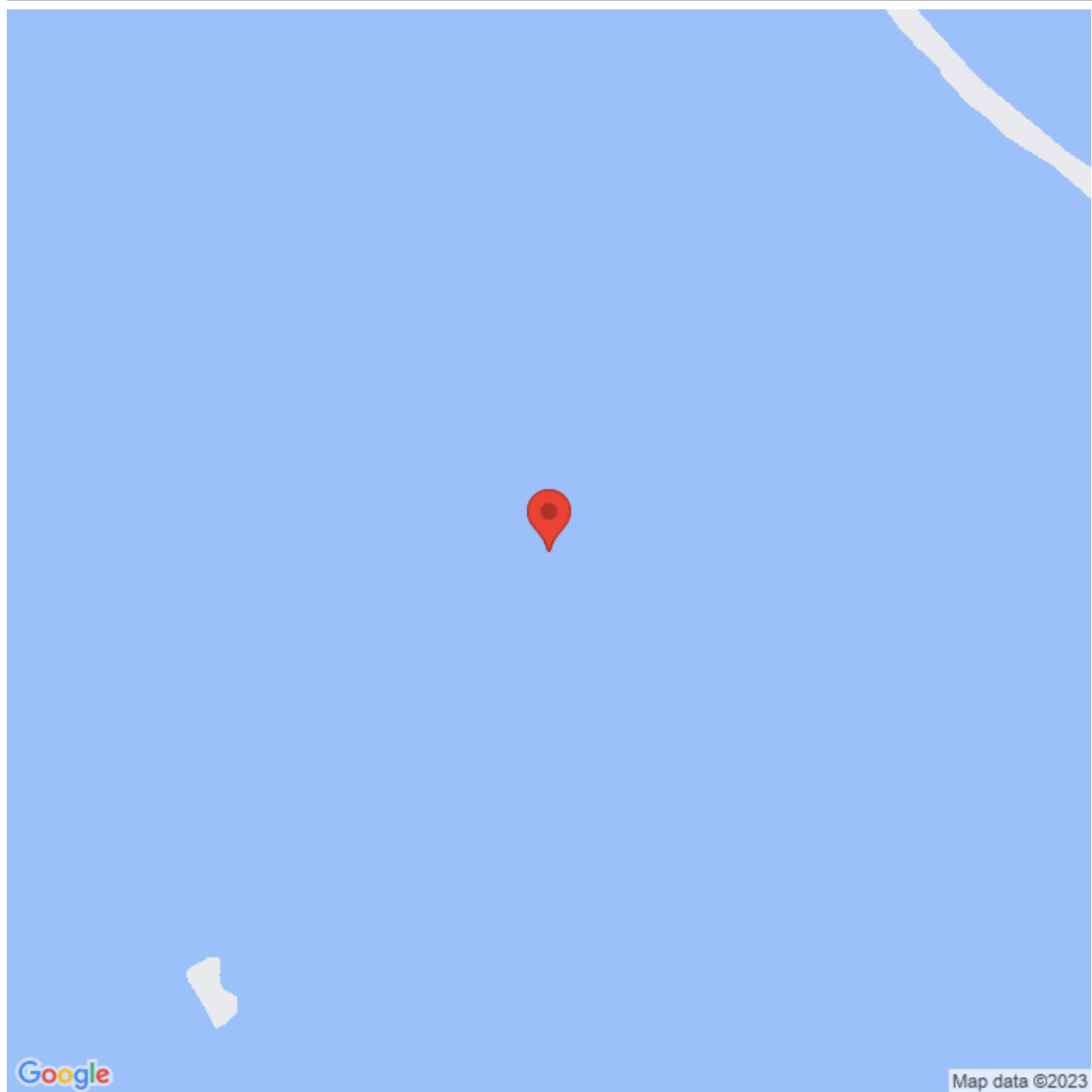
In French Polynesia: Tuamotu islands

Pacific Ocean: Australia, Papua New Guinea

Ecology and habitat

In the lagoon, on pinnacles.

QM2641 *Amphimedon* sp. (OTU QM2641) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Cribrochalina* sp. (OTU QM4867) (OTU QM4867)**

Order
Haplosclerida

Family
Niphatidae



External characters

massive erect fans fused into a Turbinaria-like plate growth form

Colour

drab orange-brown in life, light brown on deck

Skeletal Characters

Oscules	conules surmounted by apical oscules
Texture	harsh, firm
Surface_Ornamentation	surface smooth with occasional bumps and low conules
Ectosomal_Skeleton	ectosomal skeleton with a layer of mostly tangential or paratangential single oxeas, overlaying a cavernous choanosomal skeleton
Choanosomal_Skeleton	choanosomal skeleton more-or-less evenly reticulate with large ascending multispicular tracts interconnected by slightly smaller lateral tracts producing mostly oval or rectangular meshes; collagen moderately light with abundant single spicules interdispersed within meshes
Megascleres	robust but short oxeas, straight or slightly curved and a much smaller category of oxeas which are probably megascleres but could be termed microxeas
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Ecology and habitat

In caves

JNA Hooper (2014). QM4867 Cribrochalina sp. (OTU QM4867) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Microxina sp (OTU QM4860) (OTU QM4860)

Order
Haplosclerida

Family
Niphatidae



External characters

thickly bulbous, fleshy encrusting mat under overhang

Colour

red to red-orange alive, deep red on deck

Skeletal Characters

Oscules	single large oscules raised on low bulbs with raised oscular lips
Texture	soft, tearable
Surface_Ornamentation	inflated fleshy appearance, even surface
Ectosomal_Skeleton	ectosome with light tangential layer of tornotes forming irregular paratangential tracts but predominantly parallel to the surface, with some light detritus in places on the surface
Choanosomal_Skeleton	choanosome with well developed fibre skeleton with primary ascending fibres. mostly uncored, occuasionally with tornotes and what appear to be echinating microxeas in bundles (trichodragmata) or singly; secondary transverse fibres clear of any spicules, spongin fibre meshes semi-regular rectangular, triangular or oval; poor collagen in meshyl
Megascleres	tornotes
Microscleres	microxeas
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

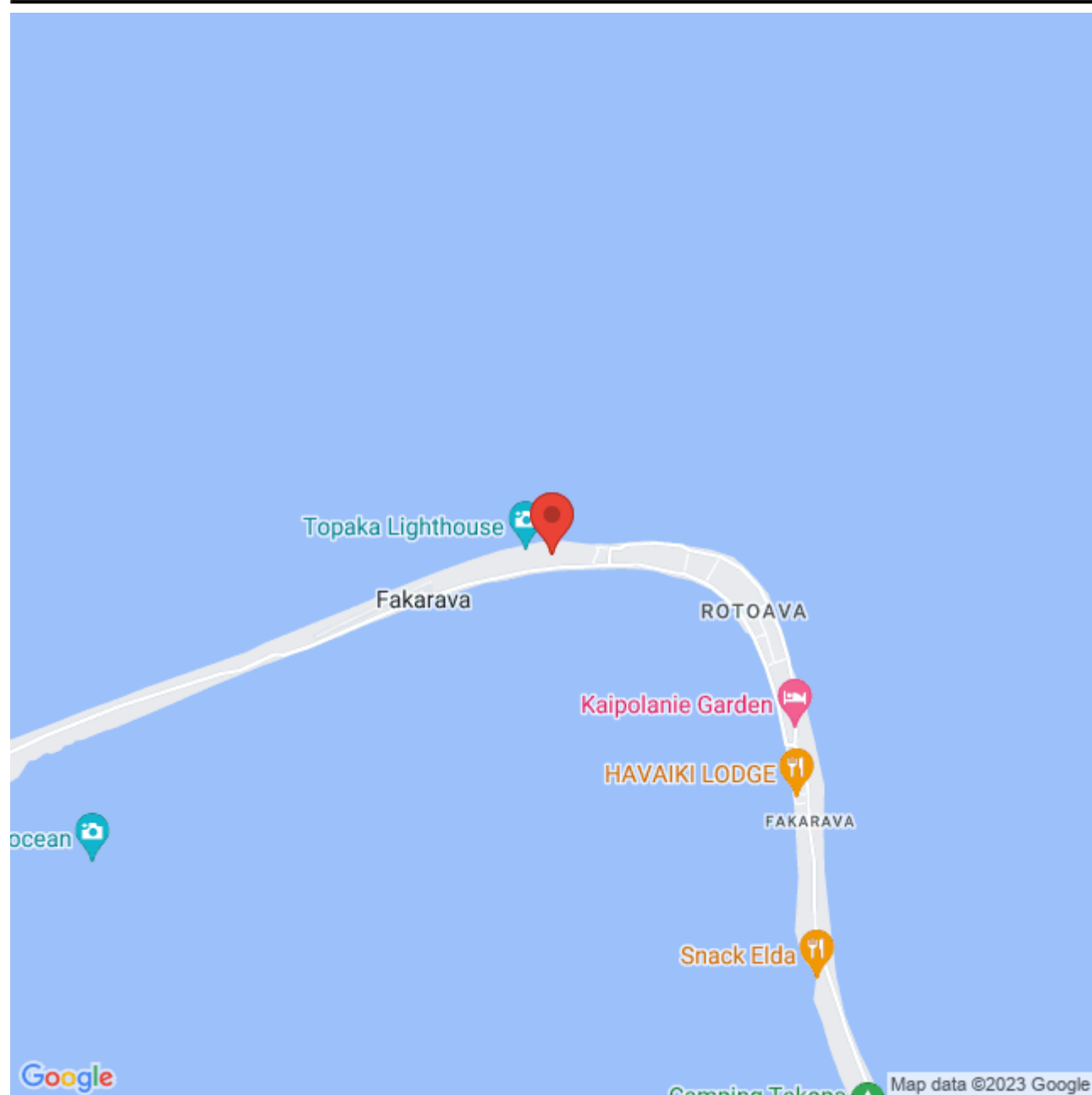
Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

In the lagoon on pinnacles, not so far the pass.

JNA Hooper (2014). QM4860 *Microxina* sp (OTU QM4860) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



Family: Petrosiidae

***Neopetrosia exigua* (OTU QM0002)**

Order
Haplosclerida

Family
Petrosiidae



External characters

massive, lamellate, forms round or angular lumps; thick upright ridges or lamellae forming interconnected buttressed walls.

Colour

brown, chocolate brown, khaki green or mauve, green in life (exterior maroon to purplish-red, interior cream).

Skeletal Characters

Oscules	small, apical on ridges.
Texture	brittle, easily crumbled.
Surface_Ornamentation	even, with some ridges and irregular striated lines on faces of lamellae.
Ectosomal_Skeleton	multispicular tangential brushes of oxeas protruding through a multispicular tangential layer.
Choanosomal_Skeleton	irregularly reticulate; multispicular tracts of oxeas forming more-or-less oval meshes; some differentiation between ascending and transverse tracts; no fibres; collagen sparse.
Megascleres	oxeas: 130-150 x 4-7 μ m, faintly telescoping points.
Microscleres	nil.
Mudmap_Author	Queensland Museum
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Marquesas islands

Pacific Ocean: Australia, Fiji, Solomon islands, Japan, Palau, Papua New Guinea, Tonga, Vanuatu

Indian Ocean: Malaysia, Thailand, Singapore

Ecology and habitat

Rocky slope. Inside a bay.

Queensland Museum (2014). QM0002 *Neopetrosia exigua* (Kirkpatrick, 1900). In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Neopetrosia* sp. (OTU QM4869) (OTU QM4869)**

Order

Haplosclerida

Family

Petrosiidae

External characters

thickly encrusting subspherical lump

Colour

chlorophyl green on deck

Skeletal Characters

Oscules	few small oscules scattered on surface, only slightly raised above it
Texture	harsh, firm
Surface_Ornamentation	even surface
Ectosomal_Skeleton	ectosomal skeleton with a tangential layer of oxeas forming a distinct surface layer, through which protrude sparse bundles or single oxeas from the ascending choanosomal skeleton, producing a plush surface
Choanosomal_Skeleton	choanosomal skeleton vaguely isodictyal with uni- to pauci-spicular tracts producing oval, rectangular or triangular meshes, densely packed and appearing lax; only light collagen in mesohyl
Megascleres	single category of oxeas, moderately long and with fusiform telescoped points
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society islands

Ecology and habitat

Outer reef slope.

JNA Hooper (2014). QM4869 *Neopetrosia* sp. (OTU QM4869) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Petrosia (Petrosia) sp. (OTU QM4710) (OTU QM4710)

Order
Haplosclerida

Family
Petrosiidae



External characters

massive, spreading over substrate; specimen comprised of thick, conjoined, convoluted sections.

Colour

white in life; white in ethanol.

Skeletal Characters

Oscules	numerous, regularly spaced across surface, appear slightly raised and lipped; flush with surface in ethanol.
Texture	hard, brittle, easily broken.
Surface_Ornamentation	thick, dense, confused crust of megascleres.
Ectosomal_Skeleton	irregular brushes of oxeas, almost in 3-dimensional reticulation.
Choanosomal_Skeleton	smaller strongyloxeas, with larger spicules sparsely re-enforcing multispicular tracts; multispicular primary tracts run perpendicular to ectosome at regular intervals; secondary tracts multispicular, irregular; loose spicules scattered throughout.
Megascleres	strongyloxeas: 2 size classes.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

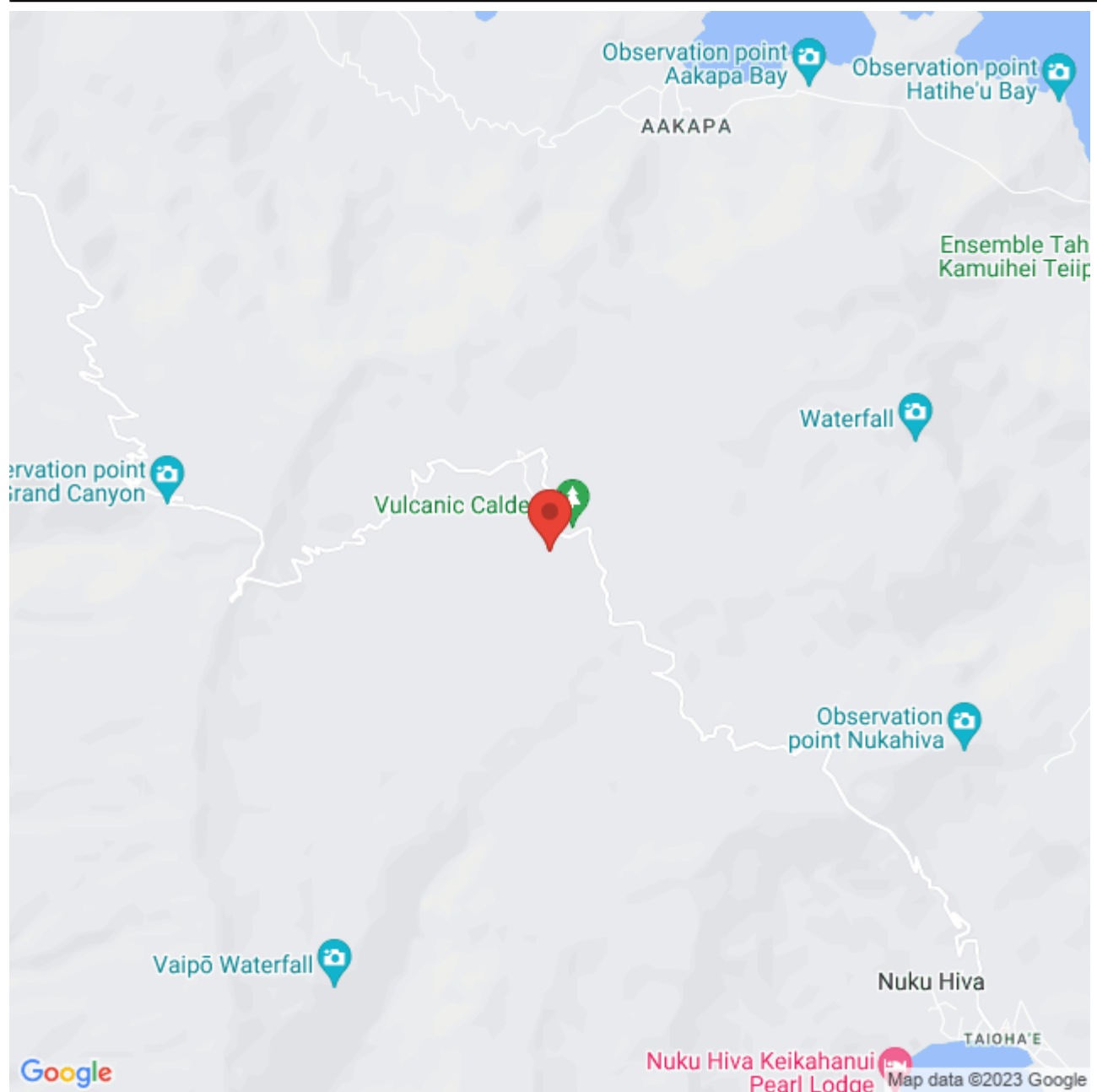
Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

In caves

P Sutcliffe (2014). QM4710 Petrosia (Petrosia) sp. (OTU QM4710) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Petrosia (strongylophora) sp. (4893) (OTU QM4893)

Order
Haplosclerida

Family
Petrosiidae



External characters

Massive, firm, smooth

Dimensions

< 10 cm Ø

Colour

Cream / beige

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

On rocky slope, on the channel's edges



***Xestospongia* sp. (OTU QM4688) (OTU QM4688)**

Order
Haplosclerida

Family
Petrosiidae



External characters

massive, forming ridges.

Colour

white in life; white in ethanol.

Skeletal Characters

Oscules	mostly apical to ridges; in ethanol, form a row of 5 medium-sized, open oscules, flush with surface.
Texture	hard, brittle, breaks easily.
Surface_Ornamentation	smooth, slightly areolate.
Ectosomal_Skeleton	dense, disorganised, tangential layer of megascleres forms thin but continuous ectosome, which originates from supporting primary tracts.
Choanosomal_Skeleton	subectosomal region consists of branching primary tracts; multispicular primary tracts dominate choanosome, with less organised secondary tracts forming mostly rounded, irregular meshes.
Megascleres	oxeas.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

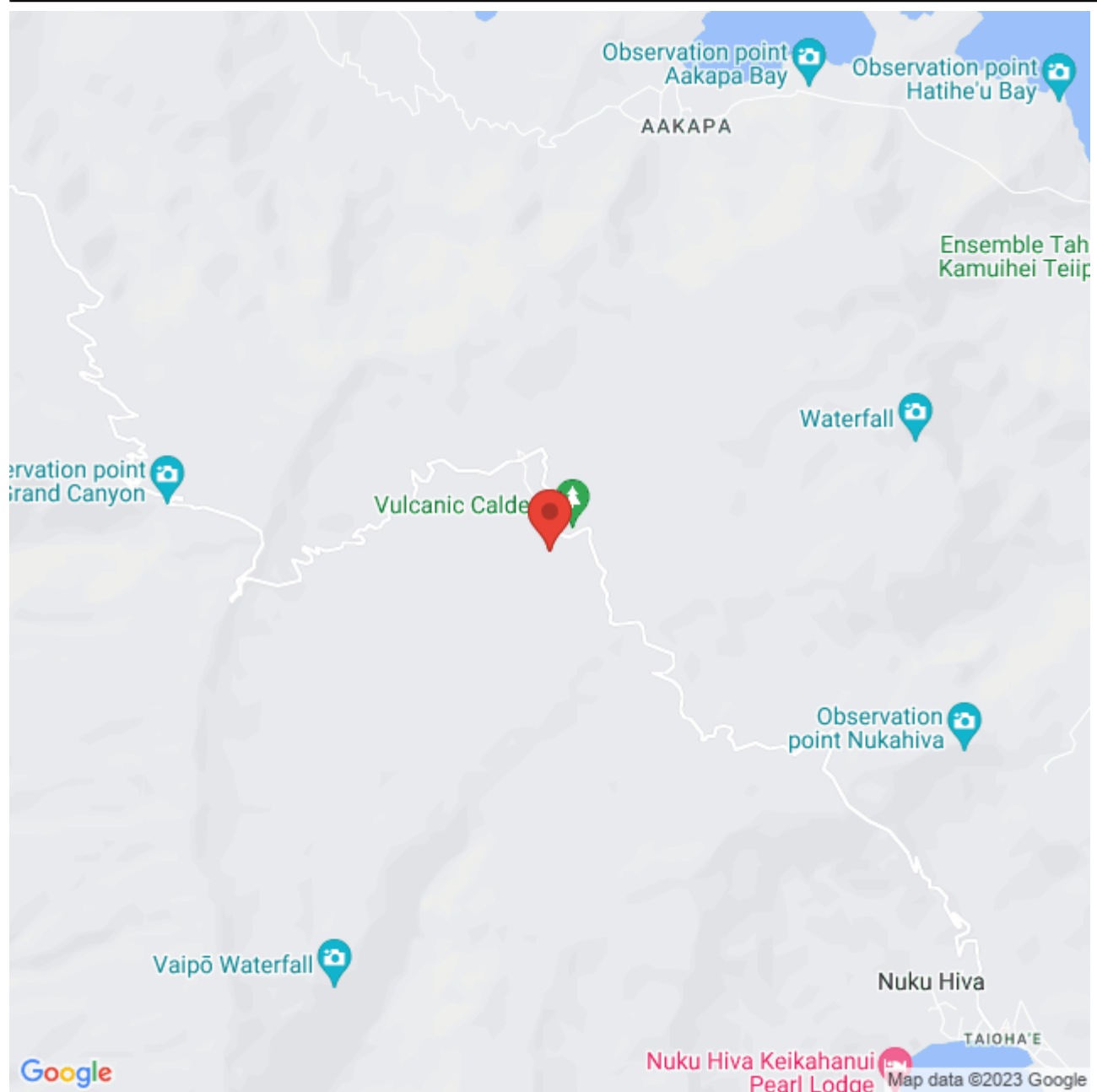
In French Polynesia: Marquesas and Tuamotu islands

Ecology and habitat

In the lagoon, on pinnacles.

In caves.

P Sutcliffe (2014). QM4688 Xestospongia sp. (OTU QM4688) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Phloeodictyidae

***Siphonodictyon* sp. (OTU QM0331) (OTU QM0331)**

Order
Haplosclerida

Family
Phloeodictyidae



External characters

burrowing, fistulose; fistules small, blind, also layer of open fistules.

Colour

fistules white in ethanol.

Skeletal Characters

Oscules	terminal on fistules.
Texture	fistules firm, brittle.
Surface_Ornamentation	fistules even.
Ectosomal_Skeleton	erect palisade of oxeas forming thick plush.
Choanosomal_Skeleton	cavernous, reticulate, multispicular tracts of oxeas forming oval or rectangular meshes.
Megascleres	oxeas: thick, abruptly pointed (hastate), 120–150 × 10–13 ?m.
Microscleres	nil.
Mudmap_Author	Queensland Museum
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas archipelago is.

Pacific Ocean: Solomon islands, Papua New Guinea, Fiji, Australia

China sea: Malaysia

Ecology and habitat

On rocky slope.

QM0331 *Siphonodictyon* sp. (OTU QM0331) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Siphonodictyon* sp. (OTU QM4700) (OTU QM4700)**

Order
Haplosclerida

Family
Phloeodictyidae



External characters

burrowing sponge with fistulose digits emerging from substratum.

Colour

mustard yellow in life; mustard yellow in ethanol.

Skeletal Characters

Oscules	not apparent; fistules appear blind.
Texture	fistules thick-walled, irregular, brittle; sponge compressible, but able to be broken cleanly.
Surface_Ornamentation	optically smooth, slightly velvety.
Ectosomal_Skeleton	palisade of oxeads connects brushes formed by primary ascending tracts.
Choanosomal_Skeleton	oxeads form thick, rounded meshes; meshes extend to subectosomal region; pseudo-tangential layer beneath ectosomal palisade.
Megascleres	thin small oxeads of a single size category and with faintly telescoped ends.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas, Society, Tuamotu islands

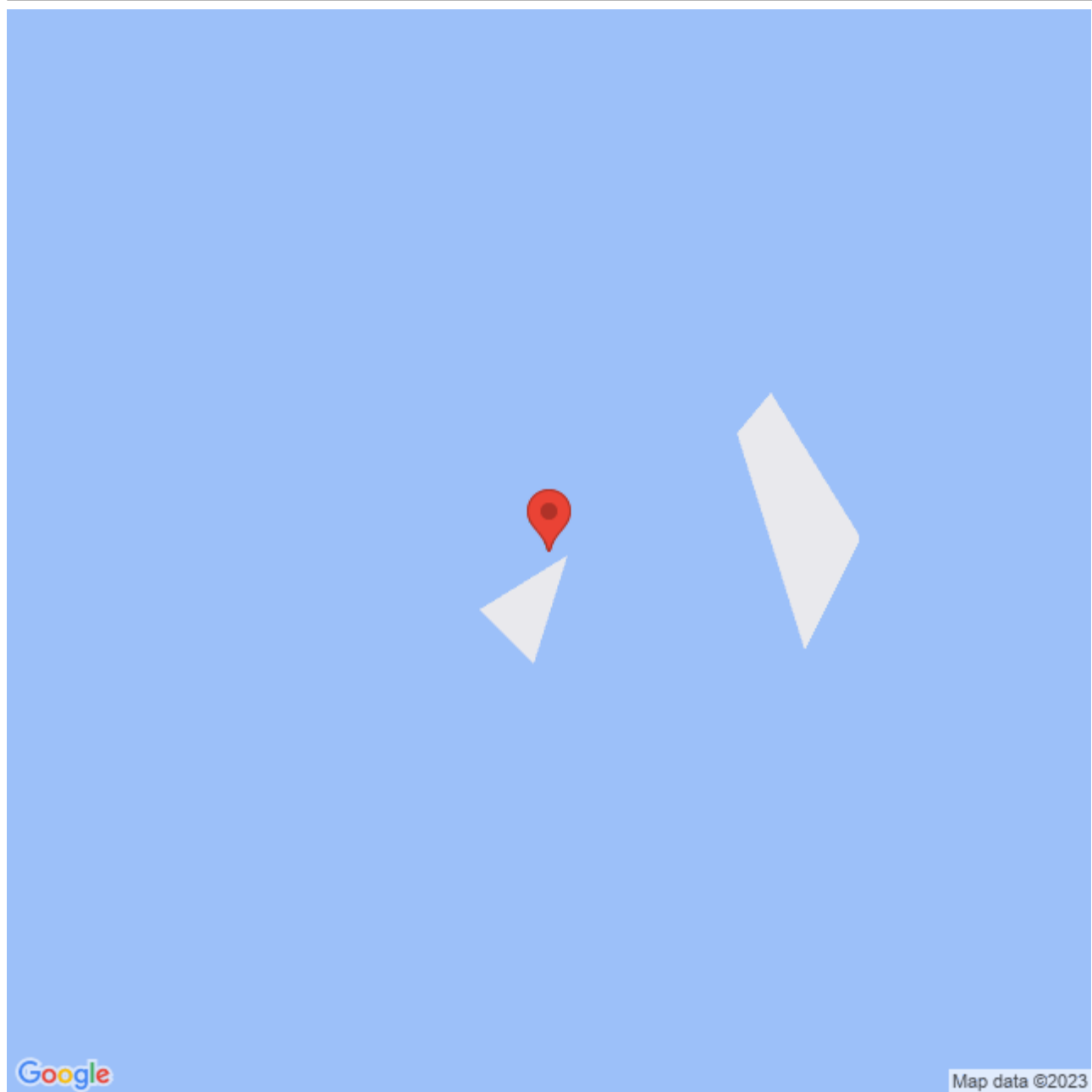
Ecology and habitat

On rocky slope in Marquesas.

In a bay in Society.

Near the pass in Tuamotu

P Sutcliffe (2014). QM4700 Siphonodictyon sp. (OTU QM4700) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Order: Homosclerophorida

Family: Plakinidae

***Plakinastrella* sp. (4892) (OTU QM4892)**

Order

Homosclerophorida

Family

Plakinidae



External characters

Encrusting, hard, smooth

Dimensions

< 2 cm

Colour

Reddish

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

In caves, on hard substrate.



Order: Leucosolenida

Family: Grantiidae

***Leucandra* sp. (OTU QM4854) (OTU QM4854)**

Order
Leucosolenida

Family
Grantiidae



© IRD / Eric Folcher

External characters

bulbous

Colour

lemon yellow

Skeletal Characters

Oscules	singular, large, with a large membranous rim
Texture	harsh
Surface_Ornamentation	porous
Mudmap_Author	JNA Hooper
Mudmap_Editor	JNA Hooper

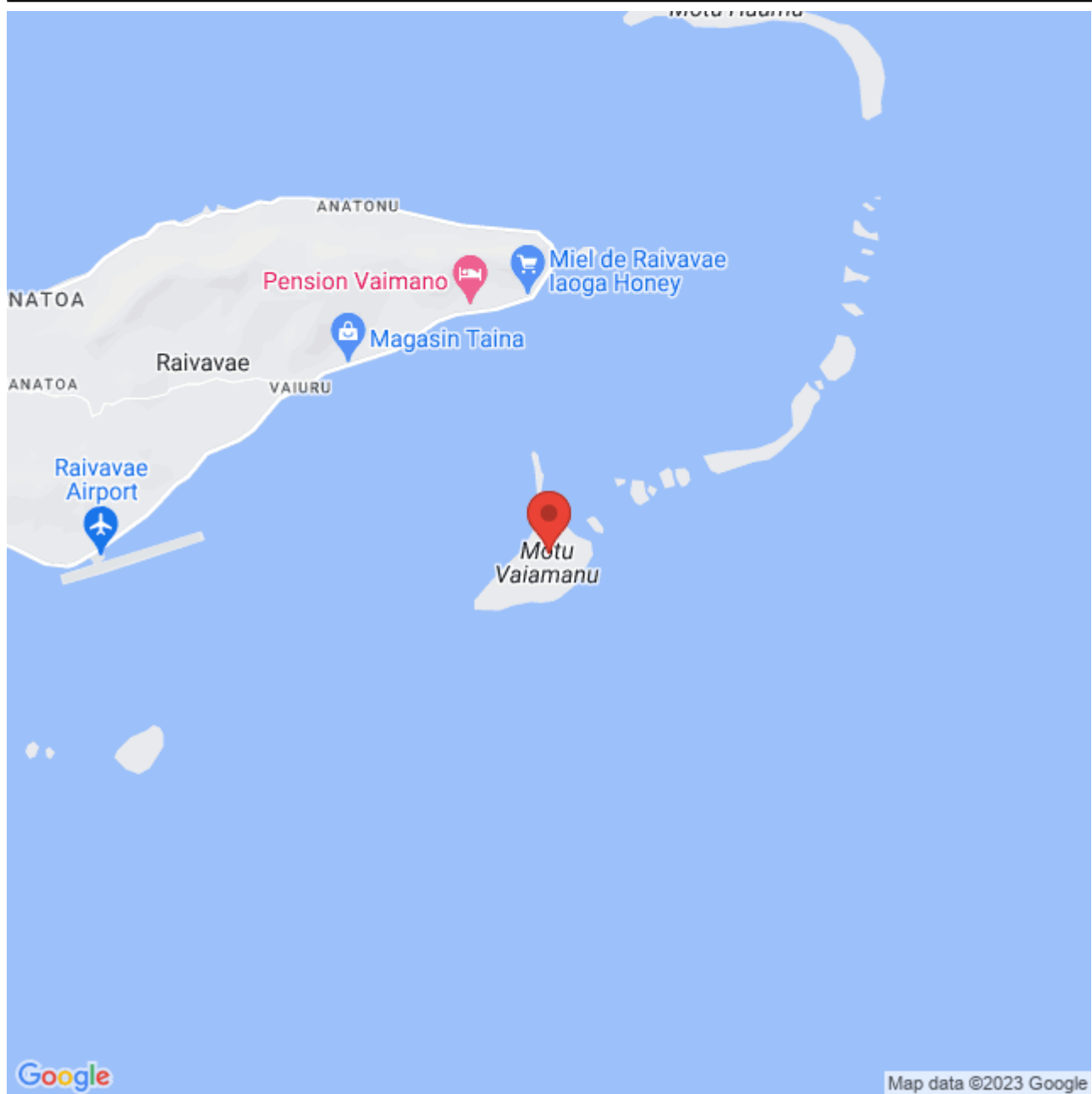
Distribution

In French Polynesia: Austral islands

Ecology and habitat

In the lagoon, on the shell of Giant clam or on pinnacles

JNA Hooper (2014). QM4854 *Leucandra* sp. (OTU QM4854) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Order: Poecilosclerida

Family: Chondropsidae

***Batzella* sp. (OTU QM2734) (OTU QM2734)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

bulbous, thick encrusting

Colour

pale yellow in situ; beige in alcohol

Skeletal Characters

Oscules	single oscule seen
Texture	soft and firm, compressible
Surface_Ornamentation	heavily corrugated and shaggy
Ectosomal_Skeleton	Stylote spicules protruding
Choanosomal_Skeleton	stylote spicules arranged randomly or forming loose tracts; sand incorporated into sponge; lots of collagen present in the mesohyl
Megascleres	Stylote spicules
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Marquesas islands

Pacific Ocean: Australia, New Caledonia, Tonga

Ecology and habitat

On rocky slope.

P Sutcliffe (2014). QM2734 *Batzella* sp. (OTU QM2734) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Batzella* sp. (OTU QM2753) (OTU QM2753)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

thinly encrusting.

Colour

red or beige in life; beige in ethanol.

Skeletal Characters

Oscules	many, regularly-spaced.
Texture	soft, very thin.
Surface_Ornamentation	opaque.
Choanosomal_Skeleton	vague tracts of styles which meander through choanosome towards surface.
Megascleres	styles.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas and Tuamotu islands

Pacific Ocean: Tonga

Ecology and habitat

On rocky slope in Marquesas.

In the lagoon, on pinnacles, in Tuamotu.

Queensland Museum (2014). QM2753 *Batzella* sp. (OTU QM2753) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges.

(Available at <http://www.spongemaps.org>).



***Batzella* sp. (OTU QM4713) (OTU QM4713)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

fragments only.

Colour

no observations.

Skeletal Characters

Oscules	no observations.
Texture	no observations.
Surface_Ornamentation	no observations.
Ectosomal_Skeleton	not clear in section, however, wispy tracts appear to penetrate surface layer.
Choanosomal_Skeleton	wispy tracts of subtylostyles in disorganised criss-cross arrangement; scattered tylostyles in between.
Megascleres	subtylostyles.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	Kathryn Hall

Distribution

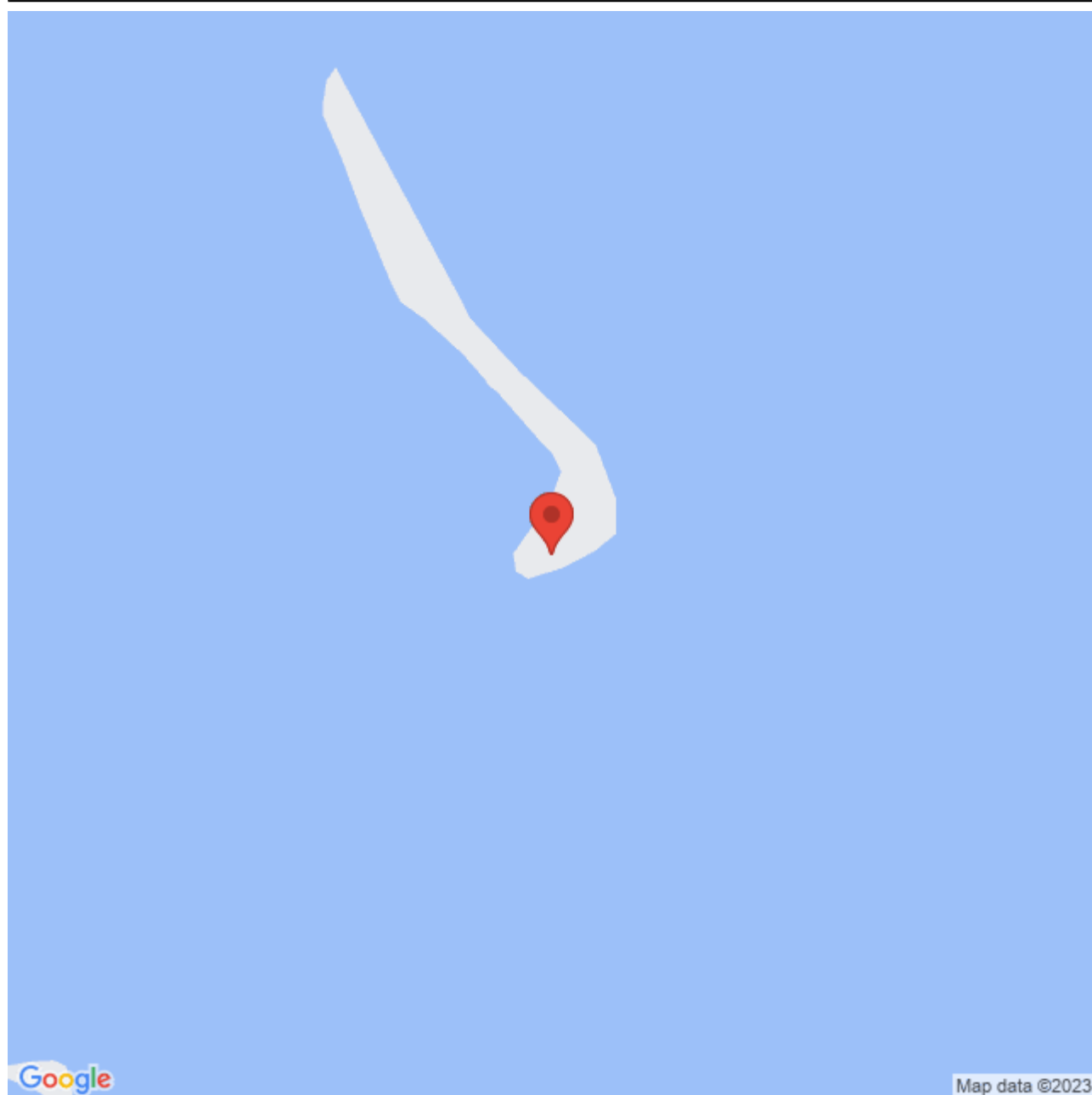
In French Polynesia: Marquesas and Tuamotu islands

Ecology and habitat

On rocky slope in Marquesas.

In the lagoon, on pinnacles in Tuamotu.

K Hall (2014). QM4713 *Batzella* sp. (OTU QM4713) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Chondropsis* sp (OTU QM4861) (OTU QM4861)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

thickly encrusting resembling a didemnid ascidian

Colour

greenish and dark blue mottled sponge alive, more evenly green on deck, with the darker portions representing the aquiferous system positioned on the external surface

Skeletal Characters

Oscules	large flaccid oscules scattered over the surface and raised above it
Texture	firm, harsh, sandy
Surface_Ornamentation	smooth, even, mottled, irregular hexagonal patterns
Ectosomal_Skeleton	no special skeleton
Choanosomal_Skeleton	sections riddled with calcareous detritus, surrounded by an irregular skeleton of tornotes and fewer and shorter styles
Megascleres	larger tornotes, shorter styles, both straight and thin
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

On rocky slope.

JNA Hooper (2014). QM4861 Chondropsis sp (OTU QM4861) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Chondropsis sp. (OTU QM3658) (OTU QM3658)

Order

Poecilosclerida

Family

Chondropsidae

External characters

thickly encrusting.

Colour

Yellow to olive green alive. Creamy-white in ethanol.

Skeletal Characters

Oscules	large terminal oscules on conulose fistules, not visible on the preserved specimen
Texture	Compressible, easy to tear.
Surface_Ornamentation	lumpy, rough, microscopically wrinkled.
Ectosomal_Skeleton	membranous with tips of spicule brushes protruding, and with or without thin crust of foreign material
Choanosomal_Skeleton	Dense mesohyl collagen cored foreign material (spicules, sand grain) and native spicules forming wavy tracts
Megascleres	thin strongyles, usually curved, sometimes strongyloxeas (100-300 um)
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tuamotu islands.

Pacific Ocean: Australia

Ecology and habitat

Outer rim of the pass

J Hooper (2014). QM3658 Chondropsis sp. (OTU QM3658) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Chondropsis sp. (OTU QM4218) (OTU QM4218)

Order

Poecilosclerida

Family

Chondropsidae

External characters

encrusting.

Colour

orange-pinkish in situ, brown on deck

Skeletal Characters

Oscules	not distinct
Texture	soft, slimy, collapses out of water
Surface_Ornamentation	smooth, slimy
Ectosomal_Skeleton	not distinct
Choanosomal_Skeleton	mainly sand grains with minimal collagen
Megascleres	very thin vestigial strongyles, absent in some specimens
Microscleres	Nil
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

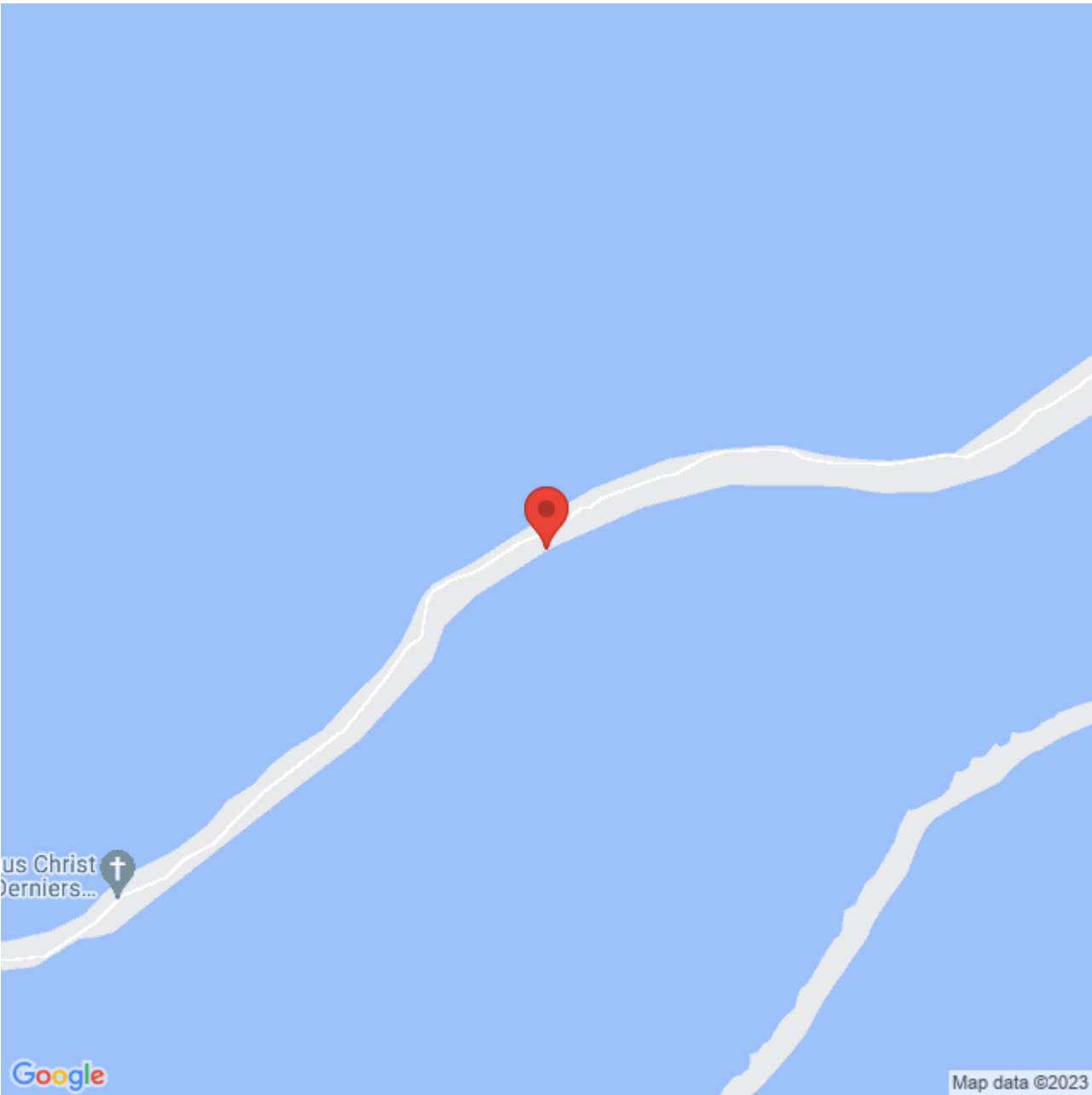
In French Polynesia: Tuamotu islands

Pacific Ocean: Australia

Ecology and habitat

Outer reef slope

J Hooper (2014). QM4218 *Chondropsis* sp. (OTU QM4218) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Phoriospongia* sp. (OTU QM1599) (OTU QM1599)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

thickly encrusting, ~ 5 cm thick.

Colour

orange in life; beige in ethanol, with hints of orange colour remaining; stains ethanol light yellow.

Skeletal Characters

Oscules	lipped in life, fine, apical to small mounds; not obvious in preserved specimen, but when sponge is compressed, fixative comes out in fine stream at pressure.
Texture	soft, dense, compressible, able to be torn.
Surface_Ornamentation	fine, undulating conules visible in preserved specimen; appears as though the sponge has contracted into dense clump in ethanol.
Ectosomal_Skeleton	light, collagenous, occasional spicule inclusions; no distinct layer.
Choanosomal_Skeleton	styles in wavy tracts; mesohyl uniform; free spicules present.
Megascleres	styles.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

On rocky slope

P Sutcliffe (2014). QM1599 *Phoriospongia* sp. (OTU QM1599) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Phoriospongia* sp. (OTU QM3715) (OTU QM3715)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

thickly encrusting, forms small cushions.

Colour

orange in life; white in ethanol.

Skeletal Characters

Oscules	not apparent.
Texture	soft, compressible, easily torn.
Surface_Ornamentation	conulose; conules small, soft.
Ectosomal_Skeleton	collagenous; primary tracts penetrate layer, ascend to conules.
Choanosomal_Skeleton	thin styles in sparse, wavy (almost zigzag) multispicular primary tracts.
Megascleres	styles.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas and Tamotu islands

Ecology and habitat

Outer reef slope or on rocky slope.

P Sutcliffe (2014). QM3715 *Phoriospongia* sp. (OTU QM3715) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Phoriospongia* sp. (OTU QM3730) (OTU QM3730)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

partially burrowing; papillae anastomose above sand; papillae contract, resemble hard balls arranged in clumps in ethanol.

Colour

bright orange in life; uniformly grey in ethanol.

Skeletal Characters

Oscules	thin, raised in life; collapse in ethanol.
Texture	brittle, harsh, easily broken.
Surface_Ornamentation	large sand grains visible on surface; papillae with convoluted surface patterns.
Ectosomal_Skeleton	armoured.
Choanosomal_Skeleton	fibrous; all fibres cored with large sand grains and foreign material; spiculate skeleton present; tylostyles form multispicular, wispy tracts.
Megascleres	styles: with swollen heads, similar to tylostyles.
Microscleres	sigmas: c-shaped, rare, very small.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

On rocky slope.

P Sutcliffe (2014). QM3730 *Phoriospongia* sp. (OTU QM3730) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Psammoclema* sp (OTU QM4879) (OTU QM4879)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

thickly encrusting

Colour

bright orange-brown

Skeletal Characters

Oscules	large oscules/ cloacas raised above surface
Texture	harsh, compressible
Surface_Ornamentation	smooth surface
Ectosomal_Skeleton	ectosome with prominent sand cortex
Choanosomal_Skeleton	choanosome heavily collagenous, no fibres, abundant detritus and cavernous in places; occasional strongyle seen in mesohyl but likely contaminants
Megascleres	Nil
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

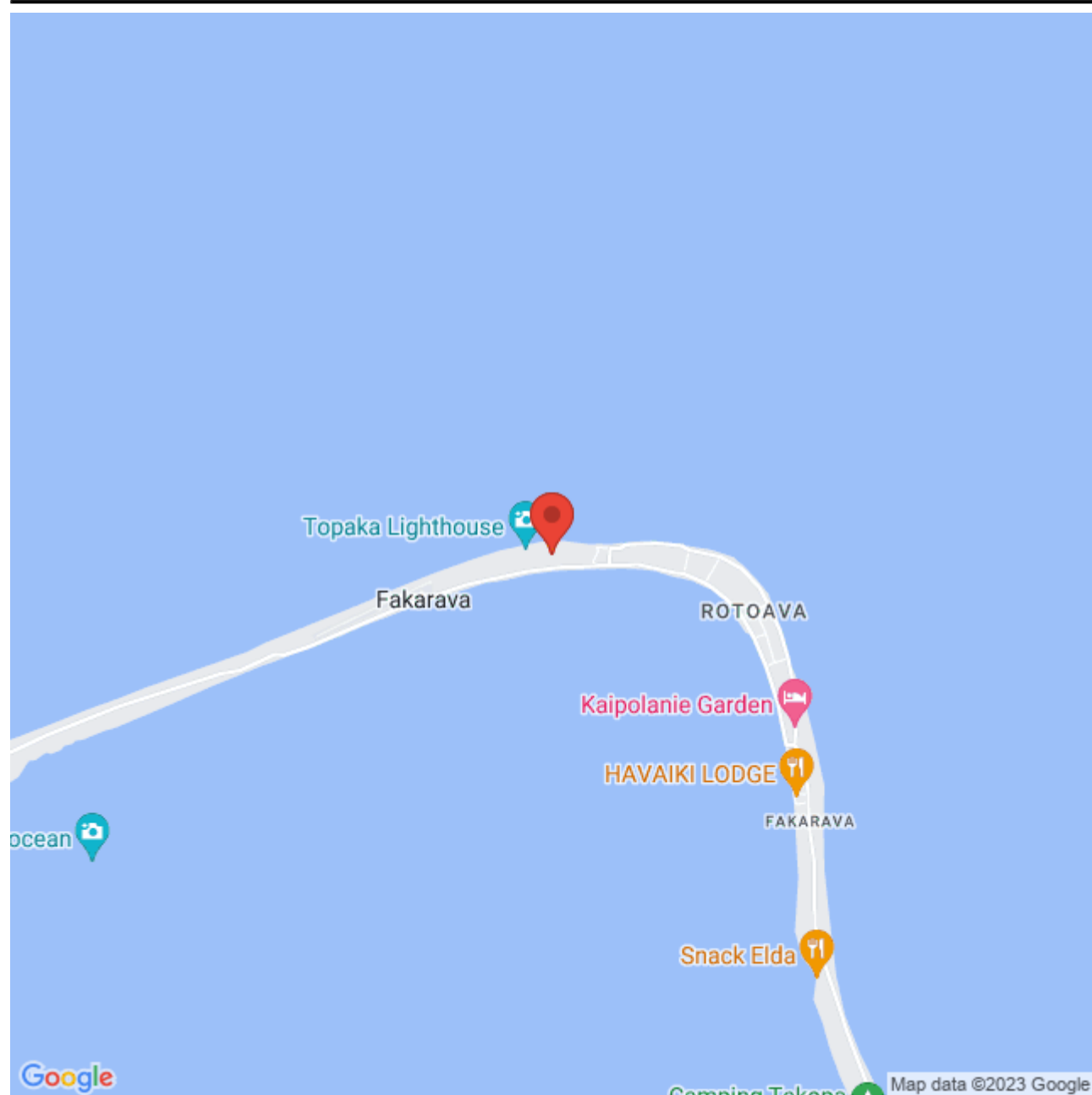
Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

In the lagoon, on pinnacles.

JNA Hooper (2014). QM4879 Psammoclema sp (OTU QM4879) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Psammoclema* sp. (OTU QM0736) (OTU QM0736)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

sponge with some sections interconnecting, forming thick ridges.

Colour

dark grey in life; dark grey in ethanol.

Skeletal Characters

Oscules	medium-sized, with raised lips in life; less apparent in ethanol.
Texture	incompressible, harsh, easily broken.
Surface_Ornamentation	cob-web patterns, Dysidea-like.
Ectosomal_Skeleton	not apparent.
Choanosomal_Skeleton	relatively regular reticulation of fibres; fibres fully charged.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

On sandy/rocky slope.

P Sutcliffe (2014). QM0736 *Psammoclema* sp. (OTU QM0736) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



Psammoclema sp. (OTU QM4798) (OTU QM4798)

Order

Poecilosclerida

Family

Chondropsidae

External characters

massive, bulbous, partially excavating, cavernous interior, binding coral, Halimeda and detritus

Colour

pinkish red exterior, bright red interior alive

Skeletal Characters

Oscules	large, covering a significant portion of upper surface
Texture	harsh (sandy) but compressible
Surface_Ornamentation	macro-conulose, cavernous
Ectosomal_Skeleton	heavily collagenous and some detritus on ectosome and below the surface
Choanosomal_Skeleton	heavily collagenous, heavy deposits of detritus in place
Megascleres	nil
Microscleres	nil
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

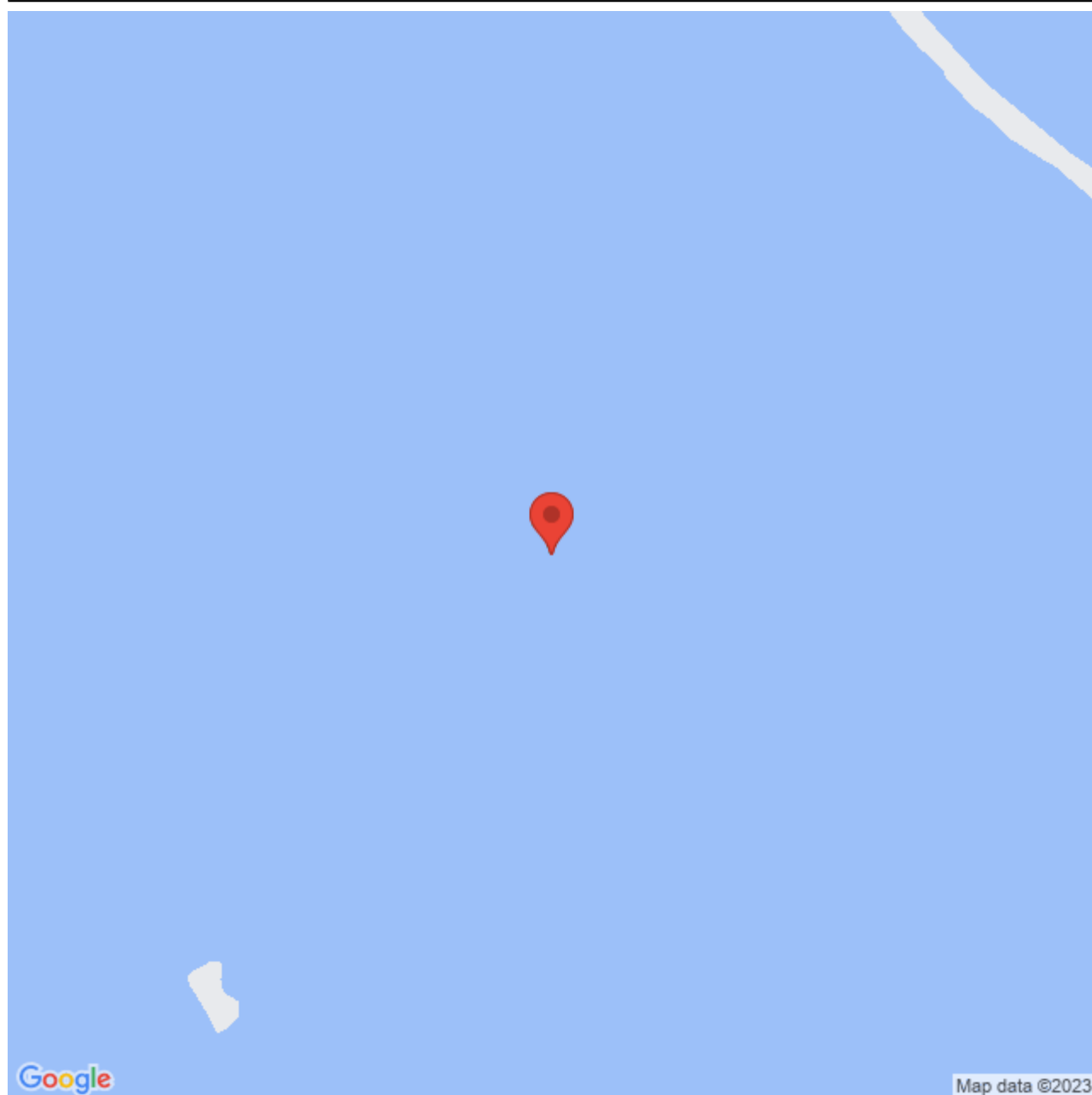
In French Polynesia: Tuamotu islands

Pacific Ocean: Vanuatu

Ecology and habitat

In the lagoon, on pearl lines.

J Hooper (2014). QM4798 Psammoclema sp. (OTU QM4798) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Psammoclema* sp. (OTU QM4870) (OTU QM4870)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

small shallow cups erect and partly burrowed in sand substratum

Colour

yellow in life, khaki-brown on deck

Skeletal Characters

Oscules	Not visible
Texture	harsh, sandy, crumbly
Surface_Ornamentation	no oscules or surface sculpturing visible
Ectosomal_Skeleton	surface is entirely covered in a sand cortex but below which is vaguely yellow colour in life
Choanosomal_Skeleton	choanosomal skeleton a dense irregular reticulation of fibres fully cored by sand and detritus; mesohyl with moderate but not well pigmented collagen containing just about every imaginable spicule from the sediments
Megascleres	Nil (no consistency in the presence of any particular category of megascleres)
Microscleres	sigmas are particularly abundant so these may be native (but no certainty in this)
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In french Polynesia: Society islands

Ecology and habitat

In caves



***Strongylacidon* sp. (1426) (-)**

Order

Poecilosclerida

Family

Chondropsidae

External characters

Encrusting, smooth

Colour

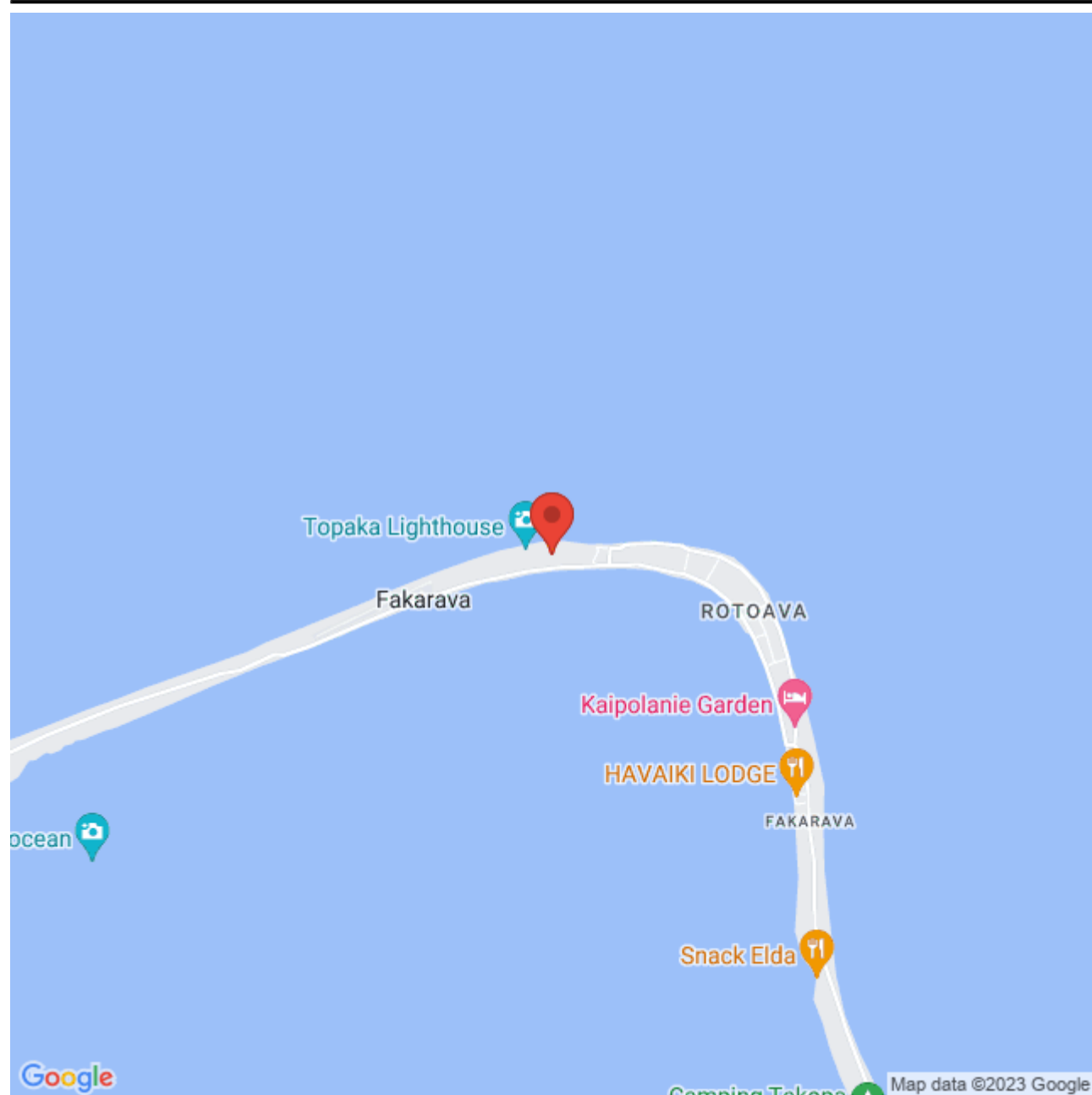
Red

Distribution

In French Polynesia: Tuamotu archipelago is.

Ecology and habitat

In the lagoon, in shelly sand environment, on hard substrate



***Strongylacidon* sp. (OTU QM2535) (OTU QM2535)**

Order
Poecilosclerida

Family
Chondropsidae



External characters

spherical, resembles *Stelletta clavosa* ("dingle berries")

Colour

pale orange to yellow-brown and mauve tinge (the latter probably cyanobacteria)

Skeletal Characters

Oscules	single apical oscule
Texture	very soft and shiny
Surface_Ornamentation	macroscopically smooth although microscopically appears "hairy"
Ectosomal_Skeleton	collagenous ectosome with sparse tracts of strongyles/ stongyloxeas ascending through to the surface and abundant collagen
Choanosomal_Skeleton	collagenous choanosome with very sparse wavy tracts of strongyles/ stongyloxeas, with tracts parallel to each other ascending through to the surface
Megascleres	strongyles ranging to strongyloxeas (270 um x 4-5 um).
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

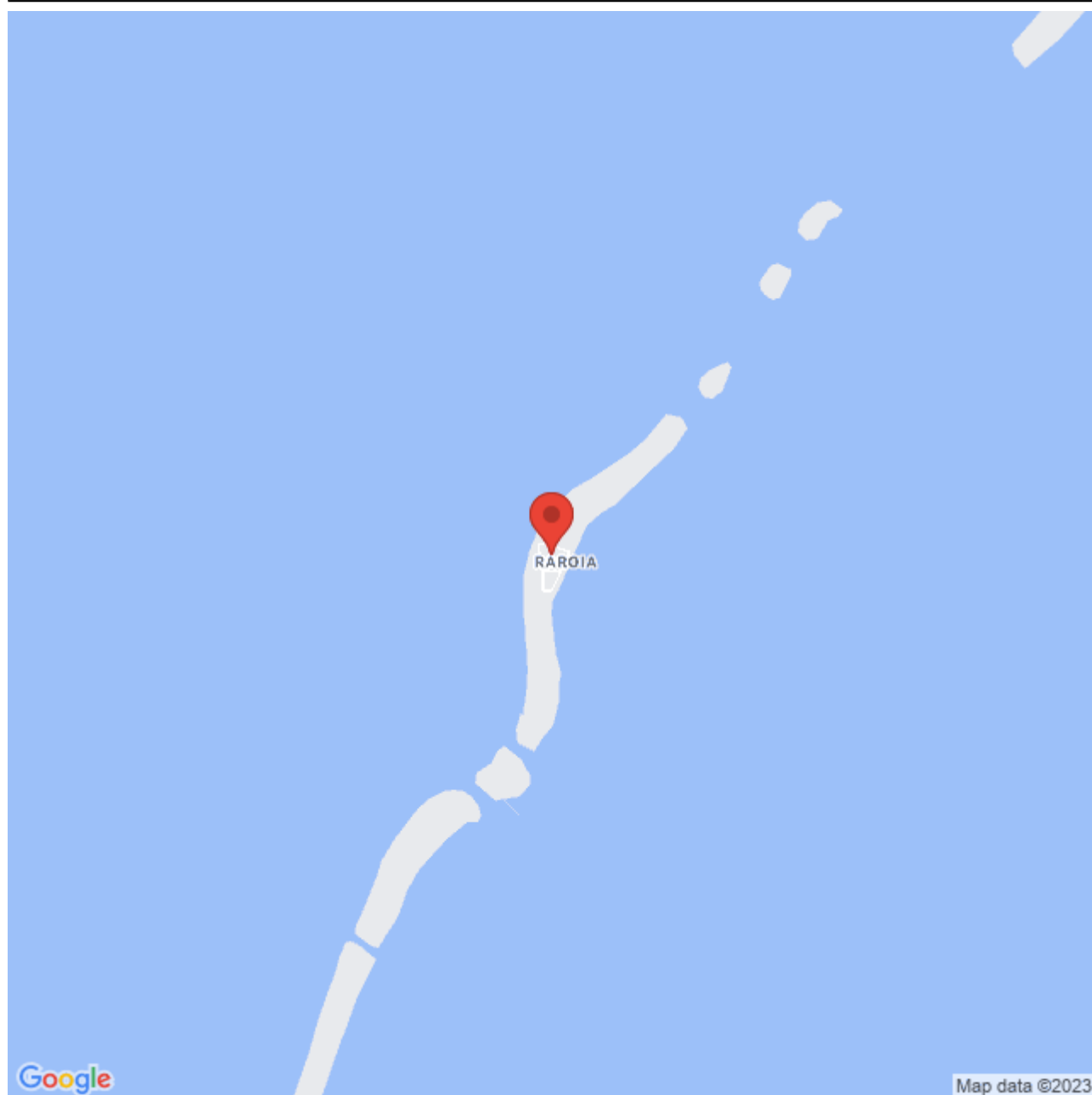
In French Polynesia: Tuamotu islands

Pacific Ocean: Vanuatu

Ecology and habitat

Outer rim of the pass.

J Hooper (2014). QM2535 Strongylacidon sp. (OTU QM2535) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Coelosphaeridae

Coelosphaera (Coelosphaera) sp. (OTU QM4683) **(OTU QM4683)**

Order
Poecilosclerida

Family
Coelosphaeridae



External characters

encrusting.

Colour

pink in life; beige in ethanol.

Skeletal Characters

Oscules	terminal to knobbed swellings; not apparent in ethanol.
Texture	soft, easily torn.
Surface_Ornamentation	smooth; ectosomal crust distinct, but not easily peeled away from choanosome.
Ectosomal_Skeleton	thick crust of paratangential tylotes in dense mass; microscleres scattered throughout, disorganised.
Choanosomal_Skeleton	strongyles arranged in loose, wavy primary tracts; strongyles not well-differentiated from ectosomal tylotes; choanosome highly spiculose, consistent, light mesohyl.
Megascleres	strongyles; tylotes.
Microscleres	chelae: isochelae, palmate.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

On rocky slope.

P Sutcliffe (2014). QM4683 *Coelosphaera* (*Coelosphaera*) sp. (OTU QM4683) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Crambeidae

Monanchora essai (-)

Order
Poecilosclerida

Family
Crambeidae



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External characters

Lisse, en boule

Dimensions

Petite

Colour

Rouge Vif

Skeletal Characters

Fill here

Ecology and habitat

Lagon

Distribution

Wallis

Possible Confusions

Non

Distribution

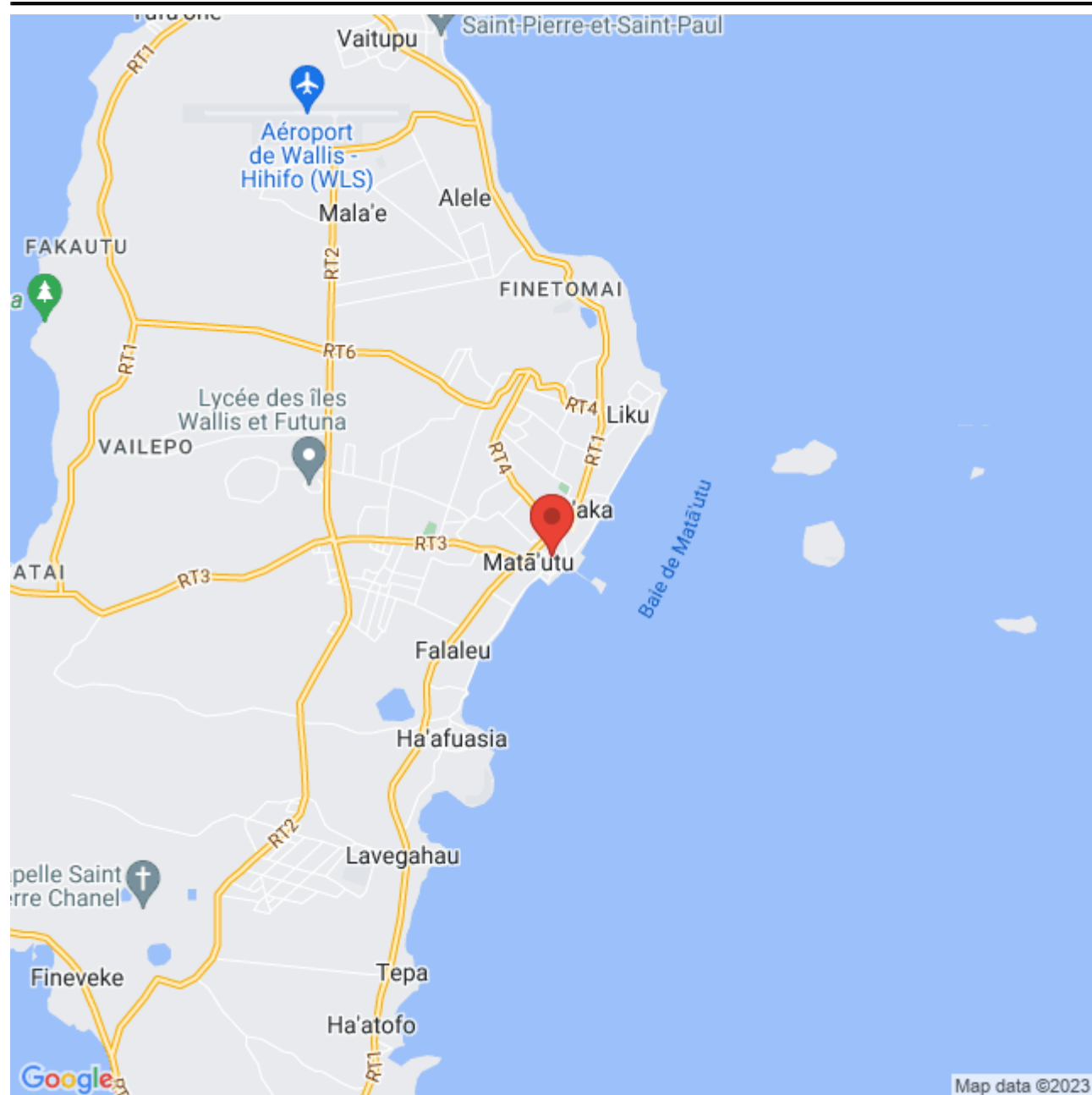
Pacifique

Dimensions

Fill here

Ecology and habitat

Fill here



***Monanchora* sp. (OTU QM4696) (OTU QM4696)**

Order
Poecilosclerida

Family
Crambeidae



External characters

thickly encrusting, anastomosing over substrate, lumpy bulbous surface when alive.

Colour

red in life; beige, with tinges of orange at the apices of bulbs when preserved.

Skeletal Characters

Oscules	moderately large, typically 5mm diameter when alive but up to 10mm diameter in some parts of the surface; each oscule is surrounded by a prominent membranous lip pigmented the same red colour as the rest of the sponge; oscules are predominantly located along the apex of ridges and bulbous surface lobes; contracted in ethanol.
Texture	compressible, dense, not resilient.
Surface_Ornamentation	smooth; slightly undulating; ectosome clearly differentiated, but cannot be peeled away; choanosome dense, pliable.
Ectosomal_Skeleton	thick, dense cortex of megascleres in paratangential, thick wavy tracts. Tracts surrounding the oscules are perpendicular to the surface, supporting the soft oscular lip. Chelae appear to be restricted to the ectosomal region, particularly immediately subcutaneous, associated with oscules in particular, and near the tips of the projecting tracts of megascleres.
Choanosomal_Skeleton	confused, spicules less dense than than in the ectosomal skeleton, reinforced by large fibres; mesohyl light, consistent.

Megascleres	subtylostyles with slightly tylote bases and abruptly rounded points, without much obvious taper, shafts slender, predominantly straight but occasionally curved in younger (thinner) spicules; 185-284 um long, 2-5 um shaft diameter.
Microscleres	unquiferous anchorate isochelae: reduced with 4 or 5 small alae (teeth), shafts very straight, 20-28 um long.
Mudmap_Author	K Hall & J Hooper
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas and Gambiers islands

Ecology and habitat

On rocky slope in Marquesas. In the lagoon, on pinnacles in Gambiers.

K Hall & J Hooper (2014). QM4696 *Monanchora* sp. (OTU QM4696) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Microcionidae

Antho (Antho) sp. (OTU QM4699) (OTU QM4699)

Order
Poecilosclerida

Family
Microcionidae



External characters

encrusting, sections projecting regularly above basal layer.

Colour

red in life; beige in ethanol.

Skeletal Characters

Oscules	not apparent in ethanol.
Texture	soft, crumbly; contracts into small knobbles in ethanol.
Surface_Ornamentation	velvety, finely convoluted layer, some projections extend 5 cm from surface.
Ectosomal_Skeleton	very thin, light, tangential.
Choanosomal_Skeleton	primary skeleton reneiroid, composed of acanthostyles; secondary skeleton multispicular, tracts of smooth tylostyles; highly spiculose.
Megascleres	acanthostyles; tylostyles: 2 size classes.
Microscleres	chelae: isochelae.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

On rocky slope.

P Sutcliffe (2014). QM4699 Antho (Antho) sp. (OTU QM4699) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Mycalidae

***Mycale (Mycale) grandis* (OTU QM3008)**

Order
Poecilosclerida

Family
Mycalidae



External characters

thickly encrusting to massive, invasive and destructive to corals.

Colour

red in life; beige in ethanol.

Skeletal Characters

Megascleres	subtylostyles: 51–660 × 15–20 ?m.
Microscleres	raphides: arranged in trichodragmata, 60–70 ?m sigmas: 2 size classes; class 1: small, 14–18 × 1.5 ?m; class 2: large, 36–50 × 4–5?m anisocheles: 3 size classes: class 1: large 130–150 ?m; class 2: medium, 28–32 ?m; class 3: small, 18–22?m.
Mudmap_Author	K Hall
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

On rocky slope.

Queensland Museum (2014). QM3008 Mycale (Mycale) grandis Gray, 1867. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Mycale (Zygomycale) sp. (OTU QM2635) (OTU QM2635)

Order
Poecilosclerida

Family
Mycalidae



External characters

thickly encrusting, forming tough, thin mats (up to ~3mm thick), anastomosing over the substrate; some sections thrown up into ridges, up to 2cm from the encrusting base.

Colour

light blue in life; white-beige in ethanol.

Skeletal Characters

Oscules	not apparent.
Texture	tough, harsh, compressible, able to be torn.
Surface_Ornamentation	slightly areolate surface due to thin ectosomal skeleton, otherwise smooth.
Ectosomal_Skeleton	tangential spicules, with rosettes of large anisochelae present in subectosomal region.
Choanosomal_Skeleton	even reticulation of styles, microscleres scattered throughout.
Megascleres	mycalostyles.
Microscleres	chelae: 2 classes class 1: anisochelae; class 2: isochelae, small; sigmas: 2 size classes.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

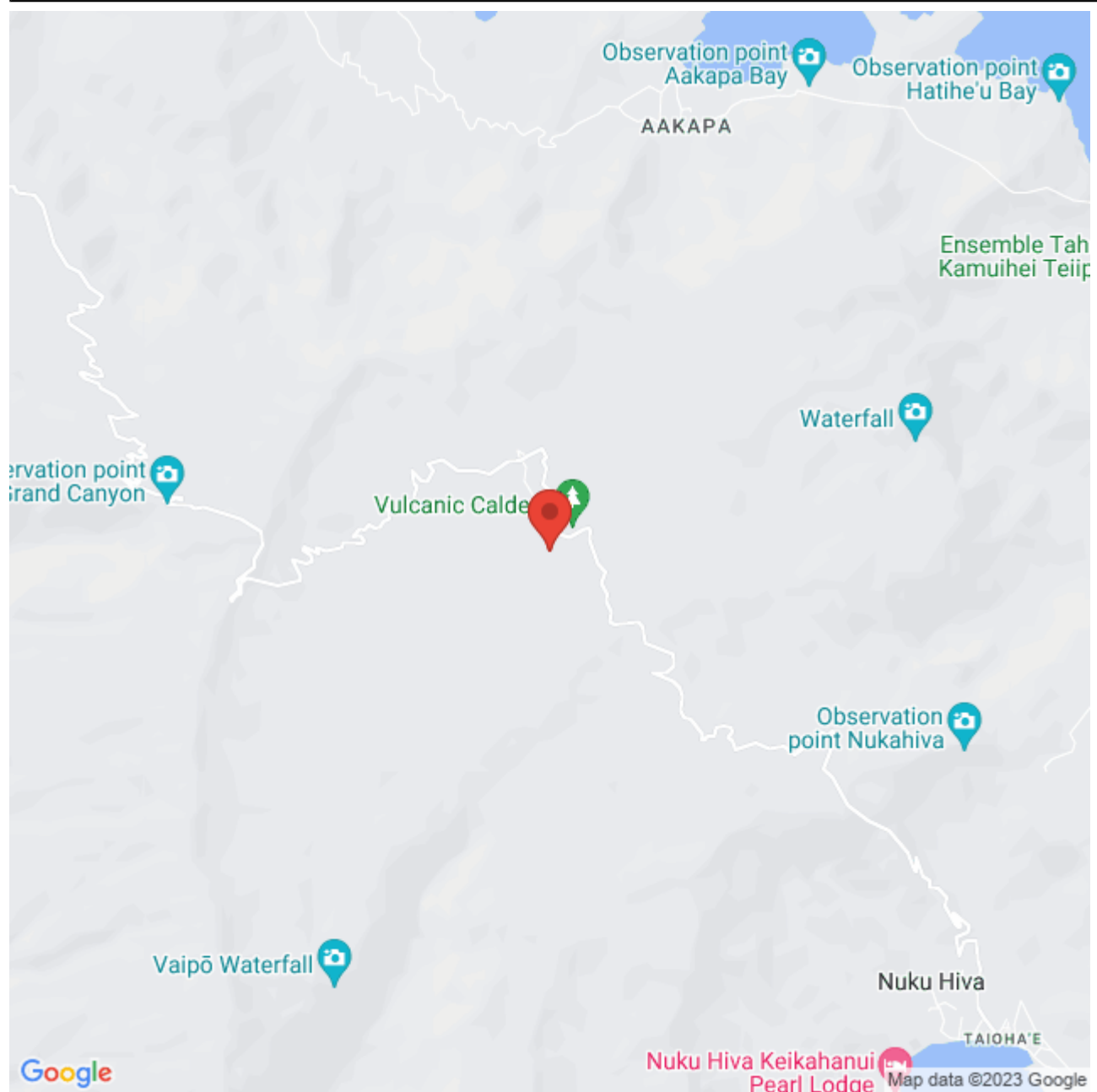
Distribution

In French Polynesia: Marquesas archipelago is.

Ecology and habitat

On rocky slope.

P Sutcliffe (2014). QM2635 Mycale (Zygomycale) sp. (OTU QM2635) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Tedaniidae

***Tedania* sp (OTU QM4864) (OTU QM4864)**

Order

Poecilosclerida

Family

Tedaniidae

External characters

bulbous thickly encrusting with tendrils on upper surface

Colour

yellowish brown on deck

Skeletal Characters

Oscules	small, on upper surface surmounted on blind fistules
Texture	soft, compressible
Surface_Ornamentation	surface shaggy with long tendrils
Ectosomal_Skeleton	ectosomal skeleton a tangential layer of tylotes with both choanosomal spicules and microscleres protruding paratangentially
Choanosomal_Skeleton	choanosomal skeleton reticulate, fairly cavernous, with tracts cored by styles and abundant onychaetes; mesohyl very light
Megascleres	ectosomal tylotes with prominent and very small microspined tyles, and choanosomal styles with smooth evenly rounded bases
Microscleres	onychaetes of two size classes
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

In caves.

JNA Hooper (2014). QM4864 *Tedania* sp (OTU QM4864) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Tedania* sp. (OTU QM0985) (OTU QM0985)**

Order
Poecilosclerida

Family
Tedaniidae



© IRD - Cécile Debitus

External characters

(Digitate, mud-fauna) or thickly encrusting on barrel spoye n 1cm thick.

Colour

Beige/red alive, white surrounding oscules.

Skeletal Characters

Oscules	Apical, on top of small peduncles raised above surface
Texture	Soft, Haliclona-like, breakable, slightly sticky
Surface_Ornamentation	Deeply pocked, undulating
Ectosomal_Skeleton	Paratangential layer tylotes with erect brushes of styles protruding, and tangential onychaetes common at surface.
Choanosomal_Skeleton	Reticulate, compacted criss-cross of layer styles, no fibres, poor collagen.
Megascleres	Styles (260 x 10um) ectosomal tylotes, spined bases (240-250 x 4um)
Microscleres	Onychaetes (130 x 2um; 2 sizes 310 x 4-5um)
Mudmap_Author	JNA Hooper
Mudmap_Editor	JNA Hooper

Distribution

In French Polynesia: Gambiers islands

Pacific Ocean: Australia

China Sea: Indonesia, Malaysia

Ecology and habitat

In the lagoon, on pinnacles.

QM0985 *Tedania* sp. (OTU QM0985) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Tedania* sp. (OTU QM4874) (OTU QM4874)**

Order
Poecilosclerida

Family
Tedaniidae



External characters

partially burrowing, fistular, with fistules appearing solid and tendril-like, especially on deck

Colour

yellow alive and on deck

Skeletal Characters

Oscules	not observed
Texture	soft, mucousy, fragile
Surface_Ornamentation	surface smooth
Ectosomal_Skeleton	ectosomal skeleton with tangential tornotes but not restricted to the surface skeleton
Choanosomal_Skeleton	choanosomal skeleton vaguely reticulate, dense, with tight tracts of styles and tornotes; mesohyl with light collagen but dense onychaetes and tight skeletal meshes
Megascleres	choanosomal styles robust and with evenly rounded bases, ectosomal tornotes with minutely microspined bases, slightly asymmetrical
Microscleres	long thin microspined onychaetes possibly in 2 size classes
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

In caves.

JNA Hooper (2014). QM4874 *Tedania* sp. (OTU QM4874) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Tedania* sp. (OTU QM4876) (OTU QM4876)**

Order
Poecilosclerida

Family
Tedaniidae



© IRD - Sylvain Petek

External characters

thickly encrusting mat

Colour

pale pinkish white alive, khaki brown in air

Skeletal Characters

Oscules	large oscules sunken into pits on surface bulbs, with raised solid lip
Texture	firm, compressible
Surface_Ornamentation	surface covered with "sucker-like" conules with raised lips
Ectosomal_Skeleton	ectosomal with a very thin, transparent layer of collagen and fine acanthoxeas in a nearly regular isodictyal reticulation,(triangular meshes)
Choanosomal_Skeleton	choanosome with long plumose dendritic tracts of tornotes that support the surface conules and run through the choanosome
Megascleres	megascleres long straight tornotes or anisostyles with very slightly asymmetrical rounded ends, two categories of acanthose oxeads, large ones incorporated into the skeletal tracts or loose in the mesohyl and small thin microspined ones centrally curved
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

Outer rim of the pass.

JNA Hooper (2014). QM4876 *Tedania* sp. (OTU QM4876) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Order: Scopalinida

Family: Scopalinidae

***Stylissa flabelliformis* (OTU QM0112)**

Order
Scopalinida

Family
Scopalinidae



External characters

Thin flabelliform fans, highly papillose and fleshy. Fans up to 5 mm thick, uni-planar to multi-planar, on narrow base or short peduncles; or in form of irregularly shaped digits. Specimens up to 300 mm high.

Colour

Pale orange, red, yellow, beige-brown alive.

Skeletal Characters

Oscules	Flush on surface with bubble-like transparent membranes; less than 5 mm in diameter.
Texture	Soft, floppy, fleshy.
Surface_Ornamentation	Soft, membranous highly conulose, marked with thick choanosomal axes. Soft conules, up to 6 mm long, evenly or irregularly distributed. Dermal membrane transparent, delicate and collapsible out of water, stretched over conules and supported by choanosomal fibres.
Ectosomal_Skeleton	Ectosome apparently non hispid, highly papillose, fleshy, little (reduced) extra axial skeleton.
Choanosomal_Skeleton	Plumose tracts ascending to surface, forming irregular reticulation, enveloped by sheaths or slightly to well-developed spongin fibres. In larger specimens, dendritic choanosomal axes up to 5 mm diameter, oriented longitudinally through fan and becoming thinner close to fan margin, irregularly interconnected, or anastomosing forming, an ill-defined reticulation. Most specimens with characteristic grainy pigment (when observed via light microscope) obscuring arrangement of skeleton.

Megascleres	Styles of variable thickness, some with rounded ends, 341–643 x 3–29 µm. Anisoxeas and oxeads less frequent, with tips stepped or rounded, slightly bent at one-third of total length, 255–596 x 6–27 µm thick; thin forms are common in some specimens.
Microscleres	nil.
Mudmap_Author	JNA Hooper
Mudmap_Editor	JNA Hooper

Distribution

In French Polynesia: Tahiti

Ecology and habitat

Outer reef slope, near the pass



***Stylissa massa* (OTU QM0925)**

Order
Scopalinida

Family
Scopalinidae



External characters

Massive, varying from bulbous encrusting to digitate or flabellate-digitate, thick irregular digits.

Colour

Bright yellow or orange/yellow alive, may be darker red-orange-yellow on deck.

Skeletal Characters

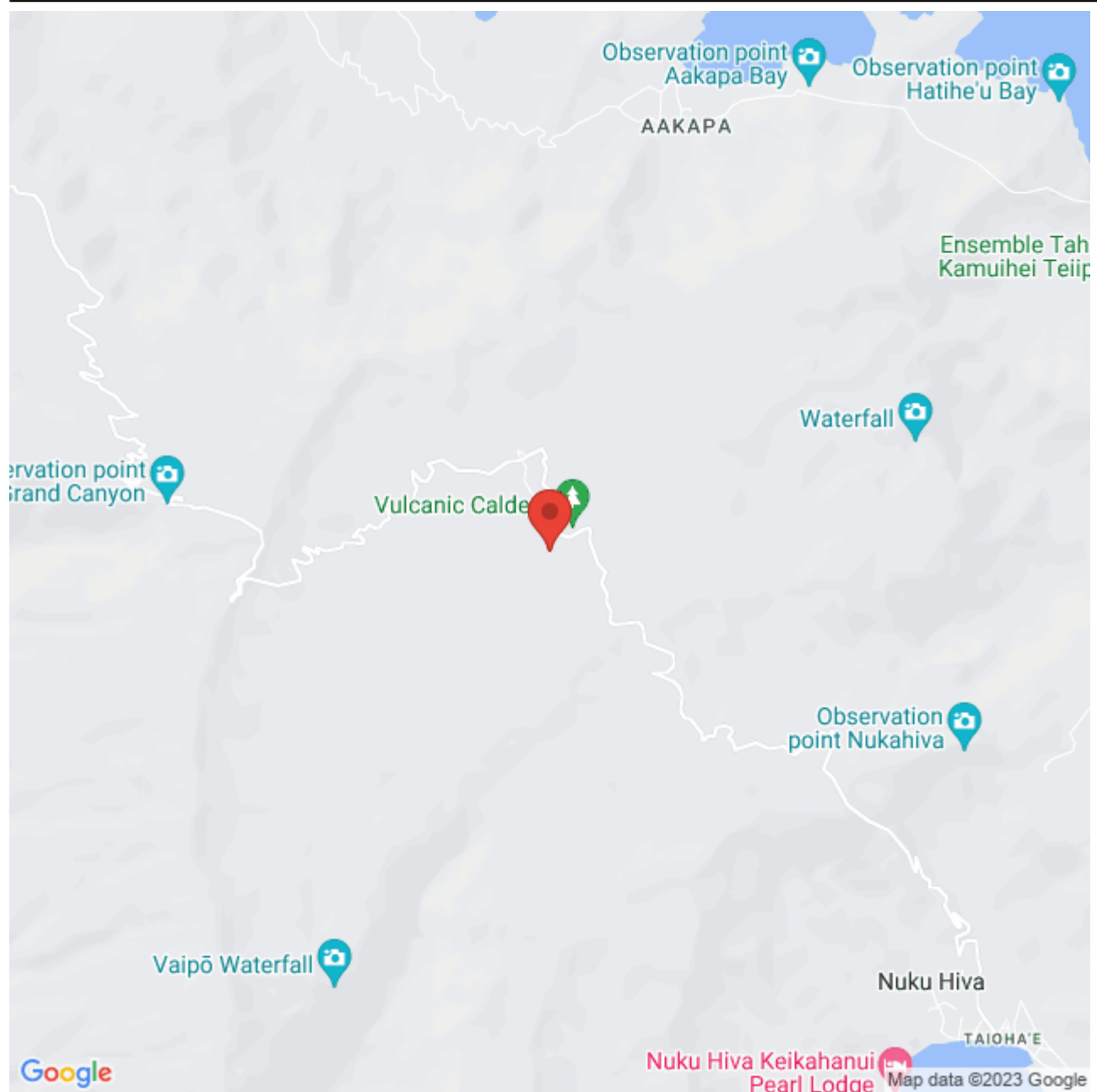
Oscules	On sides of digits, prominent, irregular. In encrusting growth forms single apical oscules sit on the ends of bulbous processes
Texture	Firm, slightly compressible.
Surface_Ornamentation	Straited, irregularly ornamented, grooves, conules.
Ectosomal_Skeleton	membranous, with tips of peripheral spicules protruding and producing a microscopically hispid, and macroscopically conulose surface (the latter only slight however). Spicule tracts are more plumose near peripheral skeleton than in the choanosomal skeleton
Choanosomal_Skeleton	Sinuuous-plumose tracts of styles, no fibres, halichondroid near the centre of the skeleton, mesohyl ranges from light to heavy collagen depending on thickness of lamellae/ digits.
Megascleres	Styles, straight, curved or sinuous, robust (500 -550 x 15 -20um).
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

In a bay, on fringing reef / rocky slope.



***Stylissa* sp. (4884) (OTU QM4884)**

Order
Scopalinida

Family
Scopalinidae



External characters

Encrusting, flexible, smooth.

Colour

Red-orange.

Skeletal Characters

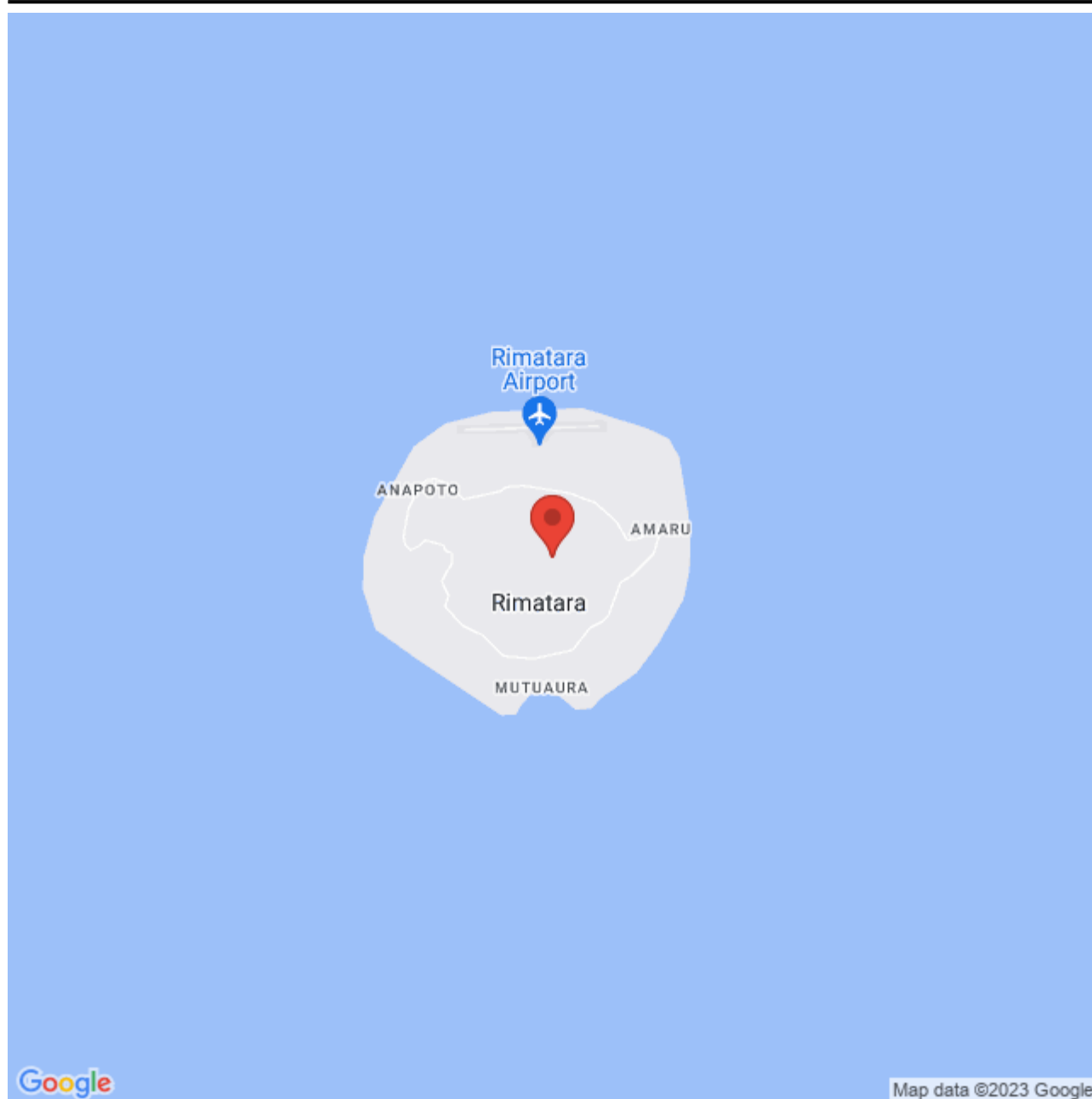
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Distribution

In French Polynesia: Austral islands.

Ecology and habitat

On hard substrate, in a bay with dead corals.



***Svenzea* sp. (4881) (OTU QM4881)**

Order
Scopalinida

Family
Scopalinidae



External characters

Massive, firm and smooth.

Colour

White-Pink

Distribution

In French Polynesia: Tuamotu islands.

Ecology and habitat

On the outer reef slope, or in the lagoon on pinnacles.



Order: Suberitida

Family: Halichondriidae

***Amorphinopsis* sp. (OTU QM4757) (OTU QM4757)**

Order
Suberitida

Family
Halichondriidae



External characters

massive, thickly encrusting, ramose, laminar, sheet-forming, incorporates detritus.

Colour

exterior dark cream to white in ethanol.

Skeletal Characters

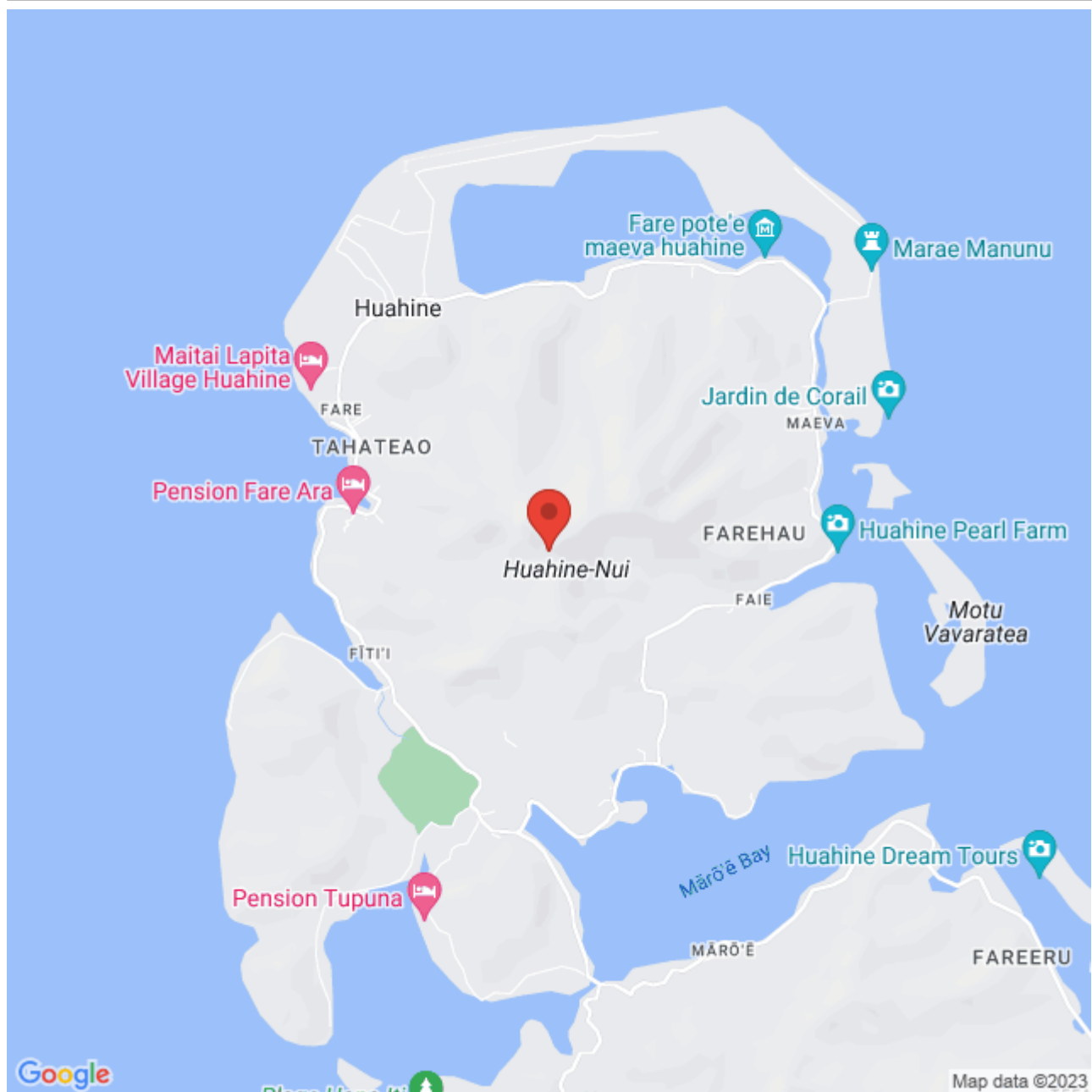
Oscules	many, small, widely scattered, <1 mm (d).
Texture	soft, tears easily, compressible, resilient.
Surface_Ornamentation	even, smooth, matte, sandpapery.
Ectosomal_Skeleton	fine layer of detritus overlaying a criss-cross palisade of fine oxeads.
Choanosomal_Skeleton	reticulate; plumose reticulation of oxeads.
Megascleres	oxeads: 3 classes of oxeads class 1: fine, rounded tips, tapered, pointed, 350 × 4–5 ?m; class 2: thick, rounded tips, slightly bent, 400 × 8 ?m; class 3: thick, rounded tips, straight, 750 × 10 ?m.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Society and Tuamotu archipelagos

Ecology and habitat

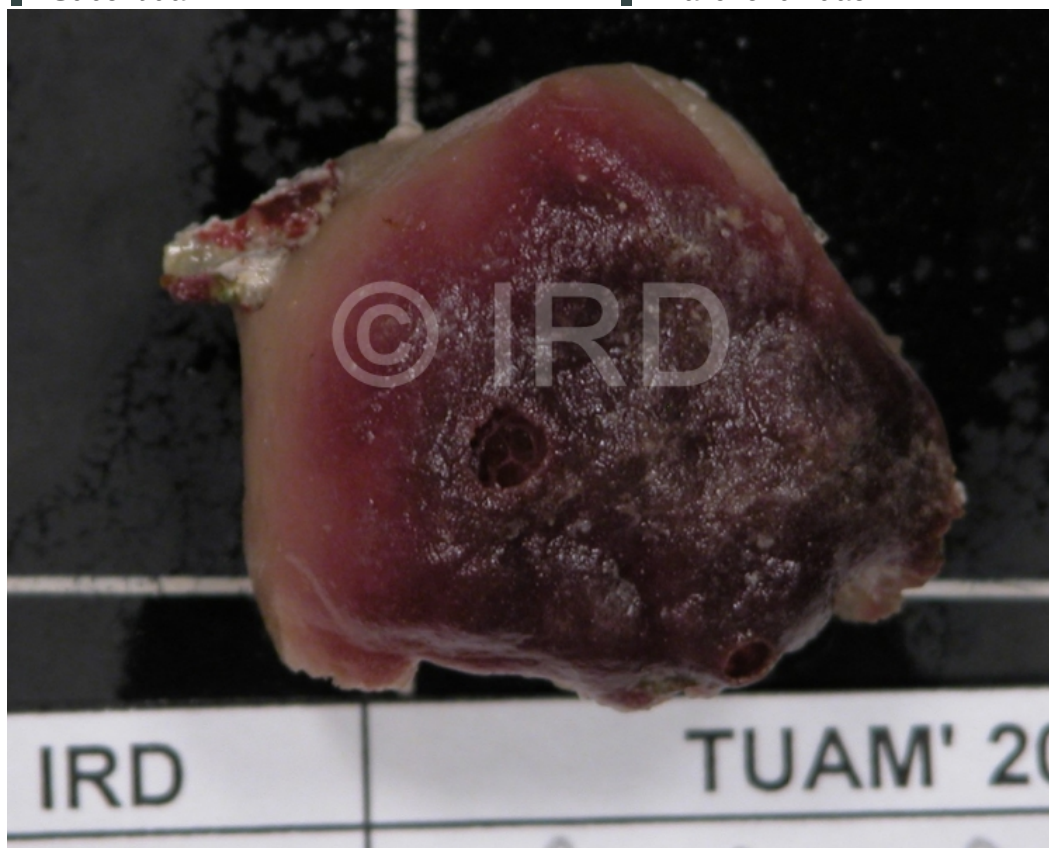
In Society islands: on the outer reef slope; in Tuamotu islands: in the lagoon, on pinacles



***Axinyssa aculeata* (OTU QM2011)**

Order
Suberitida

Family
Halichondriidae



External characters

Spherical, bulbous.

Colour

Yellow alive; greyish beige ectosome with beige choanosome in ethanol.

Skeletal Characters

Oscules	Single, large apical, scattered on lateral sides of bulbs with slightly raised lip.
Texture	Firm, barely compressible.
Surface_Ornamentation	Even, opaque, hispid.
Ectosomal_Skeleton	Membranous, with choanosomal oxeas protruding through surface by approximately half their length.
Choanosomal_Skeleton	Confused reticulation of paucispicular tracts of oxeas. Choanosome is minutely cavernous. Mesohyl collagen is moderately dense and lightly vacuolose.
Megascleres	Oxeas
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

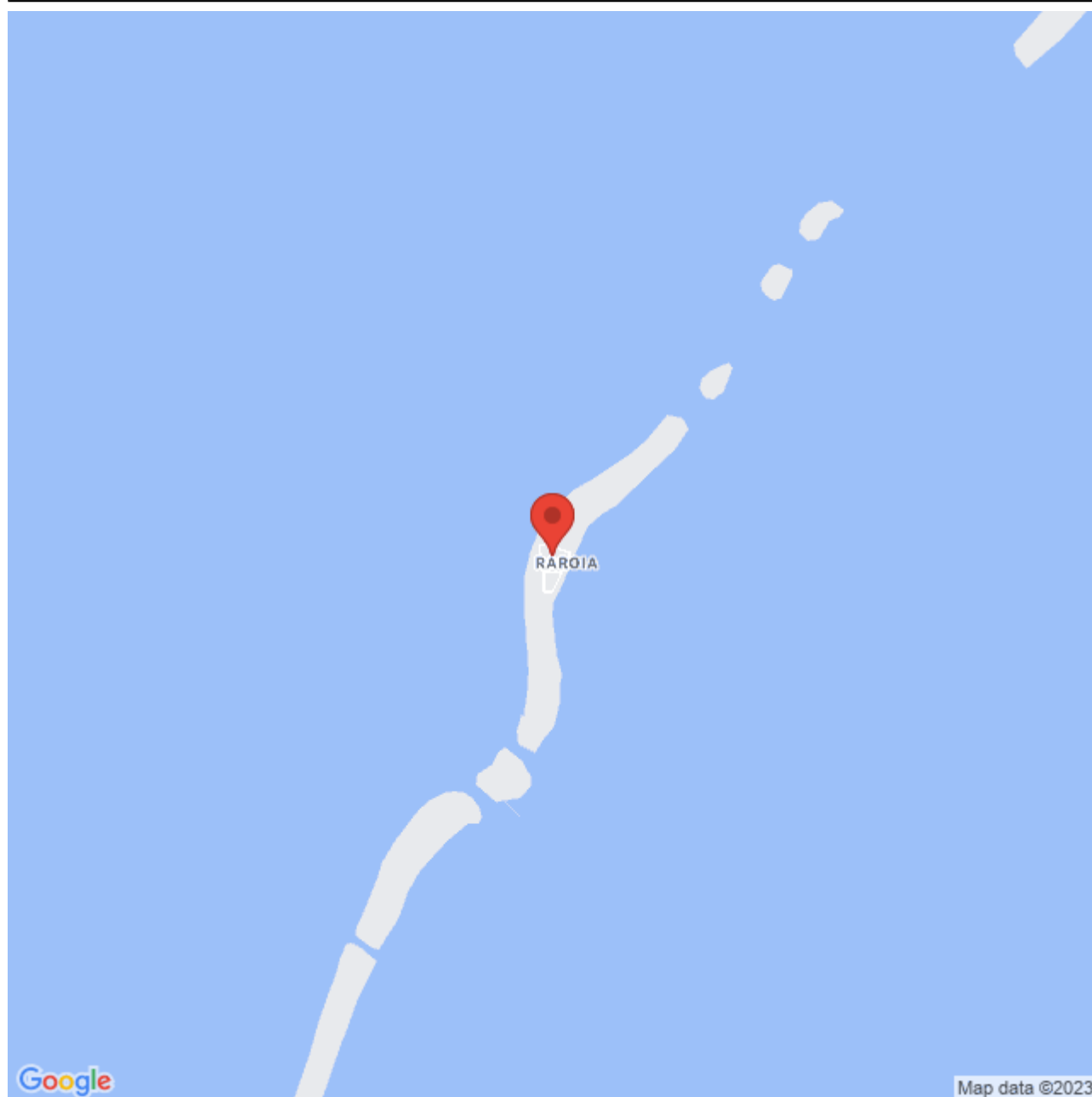
In French Polynesia: Tuamotu islands

In Pacific ocean: Japan, Palau, Hawaiï

Ecology and habitat

In the lagoon, on pinacles

J Hooper (2014). QM2011 *Axinyssa aculeata* Wilson, 1925. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Axinyssa* sp (OTU QM4849) (OTU QM4849)**

Order
Suberitida

Family
Halichondriidae



External characters

subspherical massive

Colour

brown alive

Skeletal Characters

Oscules	large oscules on upper surface with lips raised above the surface, and oscular lip more darkly pigment than surrounding surface
Texture	harsh
Surface_Ornamentation	microscopically conulose, with raised oscules prominent
Ectosomal_Skeleton	ectosome membraneous, with bundles or single styles protruding
Choanosomal_Skeleton	choanosomal skeleton halichondroid criss cross of oxeas (not dense though) and styles embedded, collagen moderate
Megascleres	styles and oxeas, with styles slightly larger than oxeas
Microscleres	Nil
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

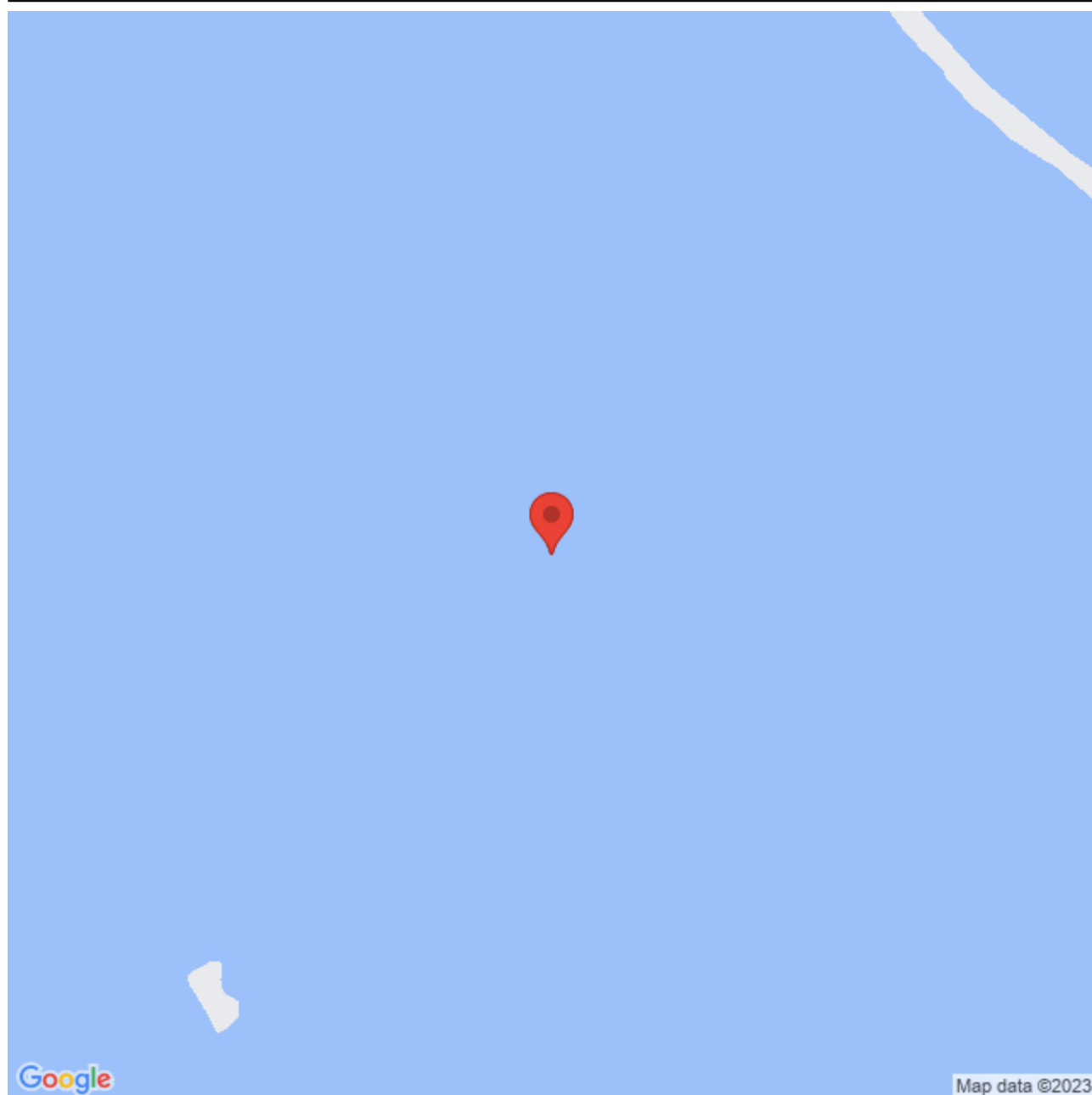
Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

In the lagoon, on pinacles

JNA Hooper (2014). QM4849 *Axinyssa* sp (OTU QM4849) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Axinyssa* sp. (OTU QM2632) (OTU QM2632)**

Order
Suberitida

Family
Halichondriidae



External characters

Bulbous (and pointed at apex-field notes)

Colour

Mustard yellow.

Skeletal Characters

Surface_Ornamentation	Shaggy surface.
Ectosomal_Skeleton	No apparent ectosomal skeleton.
Choanosomal_Skeleton	Shafts of long oxeads and few styles -"Disorganized halichondred".
Megascleres	Oxeads and few styles. 750 -800µm.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

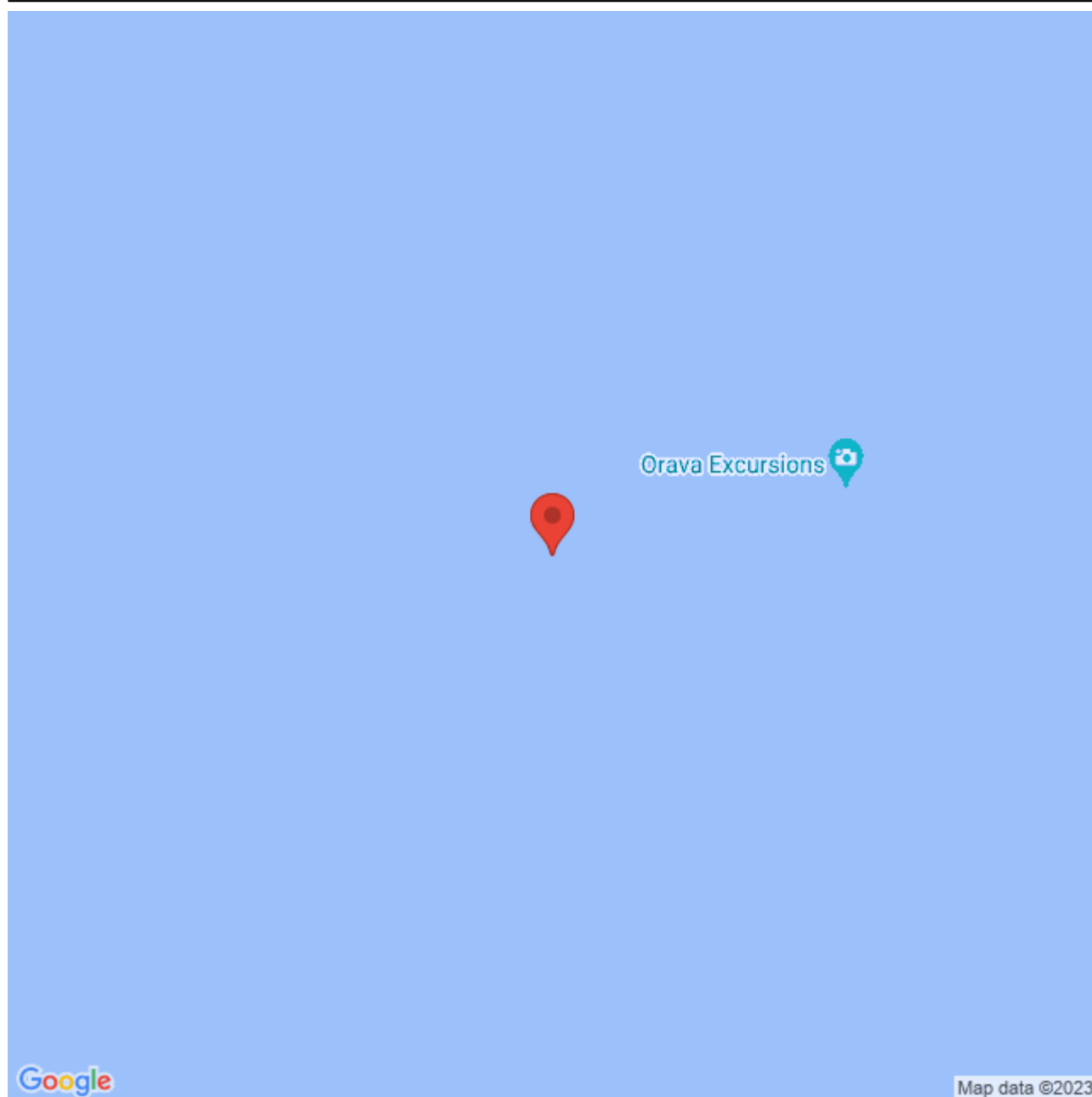
Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

On the outer reef slope

QM2632 *Axinyssa* sp. (OTU QM2632) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>)



***Ciocalypta* sp. (OTU QM0857) (OTU QM0857)**

Order
Suberitida

Family
Halichondriidae



External characters

burrowing, fistules protrude above sand; fistules thin, blind.

Colour

yellow in life; white in ethanol.

Skeletal Characters

Oscules	none visible; fistules blind.
Texture	fistules delicate, fragile; remainder retains shape well.
Surface_Ornamentation	highly conulose; hispid appearance.
Ectosomal_Skeleton	not differentiated.
Choanosomal_Skeleton	confused arrangement of megascleres, may be organised into large reticulated skeleton, however, this cannot be determined from current section; highly spiculose; trichodragmata present throughout.
Megascleres	styles: 2 size classes.
Microscleres	trichodragmata.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

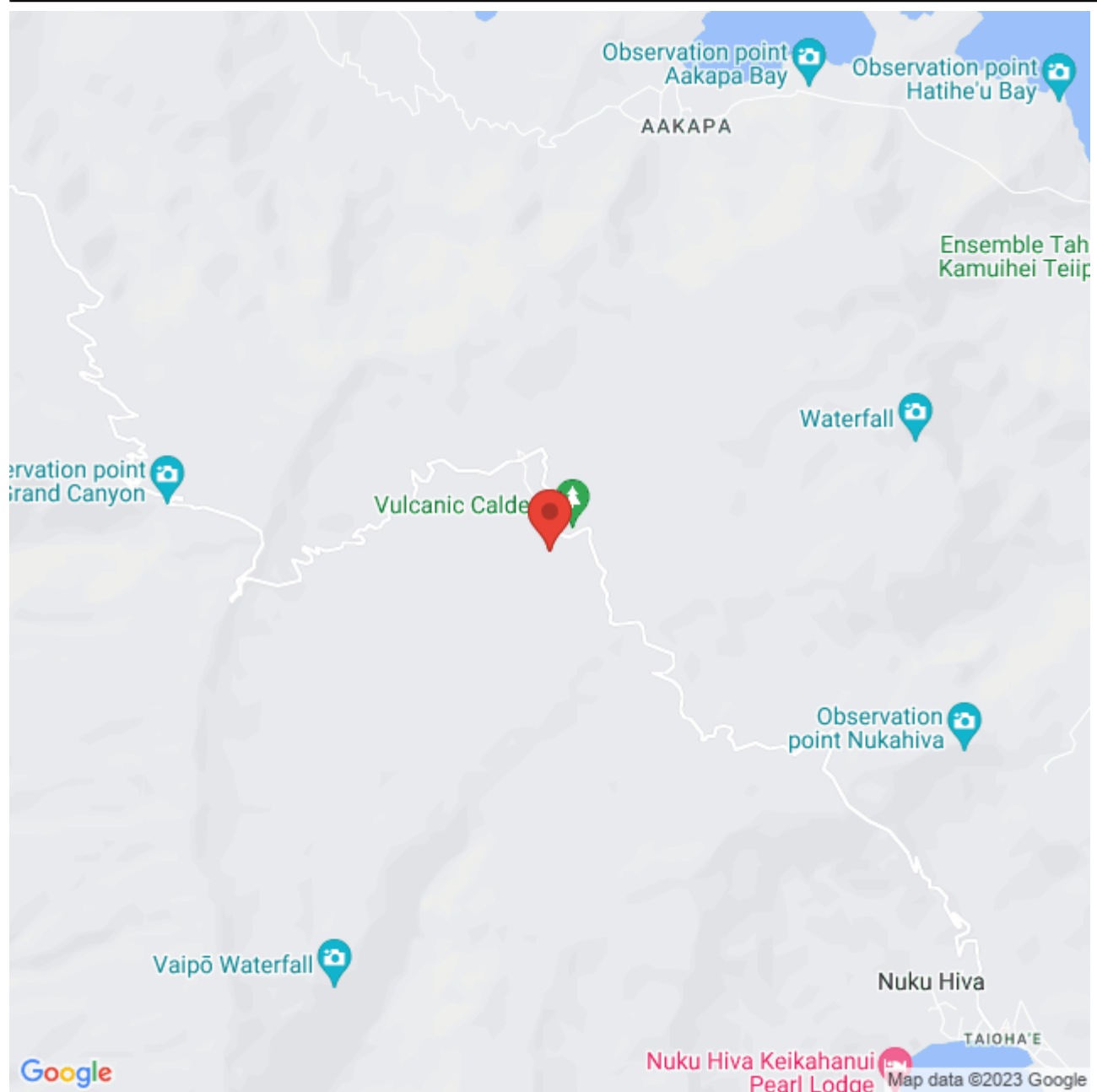
Distribution

In French Polynesia: Marquesas islands

Ecology and habitat

On sandy slope.

P Sutcliffe (2014). QM0857 Ciocalypta sp. (OTU QM0857) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Epipolasis* sp. (OTU QM0452) (OTU QM0452)**

Order
Suberitida

Family
Halichondriidae



External characters

subspherical, lobate, bulbous.

Colour

cream to pale yellow in life; interior beige, exterior chocolate brown in ethanol.

Skeletal Characters

Oscules	large, apical on lobes.
Texture	soft, compressible.
Surface_Ornamentation	even (but covered in epiphytic growth), with small ridges.
Ectosomal_Skeleton	thickly collagenous, with sparse oxeas in confused reticulation.
Choanosomal_Skeleton	heavily collagenous, no fibres, scattered oxeas throughout mesohyl, in tracts or singly.
Megascleres	oxeas: with pointed or rounded tips, $700 \times 10 \text{ ?m}$.
Microscleres	nil.
Mudmap_Author	Queensland Museum
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Large distribution in Marquesas islands

Ecology and habitat

On rocky slope/wall.

Queensland Museum (2014). QM0452 *Epipolasis* sp. (OTU QM0452) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*.

(Available at <http://www.spongemaps.org>).



Halichondria (Halichondria) sp. (OTU QM1852) **(OTU QM1852)**

Order
Suberitida

Family
Halichondriidae



External characters

Spherical, bulbous.

Colour

White alive; white on deck; white in ethanol.

Skeletal Characters

Oscules	Several, small, scattered over surface, slightly raised.
Texture	Firm, barely compressible.
Surface_Ornamentation	Lightly translucent; Even, unornamented, but subdermal drainage canals are barely visible beneath surface.
Ectosomal_Skeleton	Paucispicular, tangential layer of oxeas frequently penetrated by multispicular tracts of oxeas from the choanosome. Scattered fine sand detritus may occur on the surface. SUBMultispicular tracts of up to 40 oxeas extend from the choanosome to the surface producing meshes of up to 1.5 mm in diameter.
Choanosomal_Skeleton	Confused reticulation of uni- or paucispicular tracts of oxeas. Mesohyl collagen is light and homogeneous.
Megascleres	Oxeas (2 size classes)
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society archipelago, Tahiti

In Pacific ocean: Australia

Ecology and habitat

In caves.

J Hooper (2014). QM1852 Halichondria (Halichondria) sp. (OTU QM1852) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Halichondria (Halichondria) sp. (OTU QM4720) **(OTU QM4720)**

Order
Suberitida

Family
Halichondriidae



External characters

elongate tubulo-digit cylindrical bulbous fistules arising from a massive or bulbous common burrowing base

Colour

grey on deck, white to cream in ethanol.

Skeletal Characters

Oscules	few, irregularly ovoid, 1–3 mm (d), sparse, on small protuberances.
Texture	hispid, tearable, barely compressible, breaks with pressure, resilient, surface sandpapery.
Surface_Ornamentation	surface optically smooth and even with detritus embedded only in the basal portion, ectosome pulls away roughly; microconulose and microscopically hispid.
Ectosomal_Skeleton	ectosome membraneous but with tips of the larger strongyloxeas protruding and forming brushes and a thick palisade; subectosome with large spaces seen between the ascending plumose columns of spicules.
Choanosomal_Skeleton	more-or-less halichondroid reticulate but with a strong plumose component closer to the surface, minimal collagen

Megascleres	strongyloxeas: 4 classes class 1: dominant, predominantly strongyles, thick, slightly bent, abruptly rounded stepped tips, blunt, 600–650 × 12 ?m; class 2: thin, slightly bent, rounded tips, tapered, sharper than class 1 xeas, ends stepped, 580–640 × 3–4 ?m; class 3: thick, shorter, rounded tips, blunt, ~500 ?m; class 4: very fine fusiform tips, ~550 ?m
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	Kathryn Hall

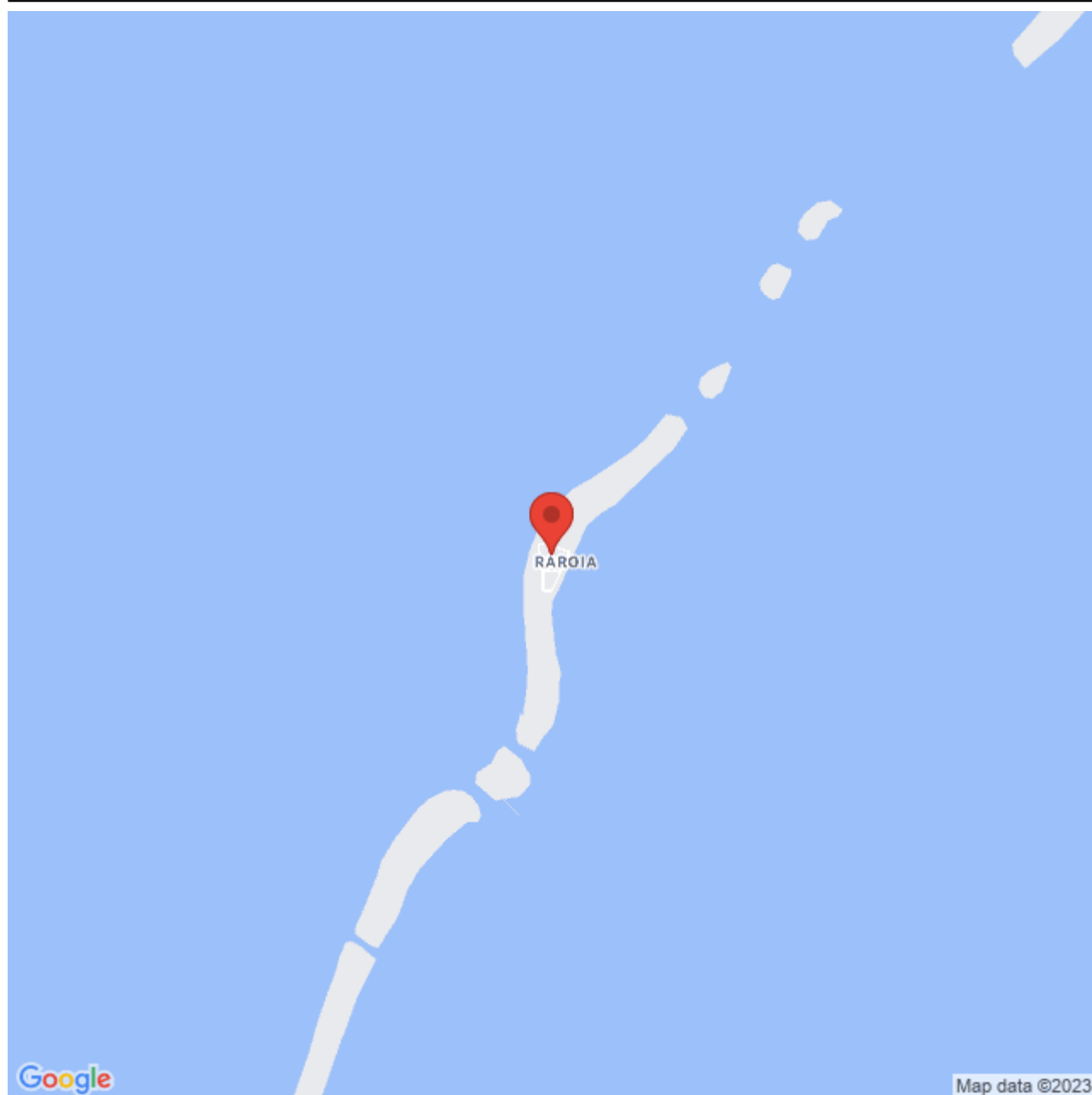
Distribution

In French Polynesia: Tuamotu islands and Tahiti

Ecology and habitat

Outer reef slope.

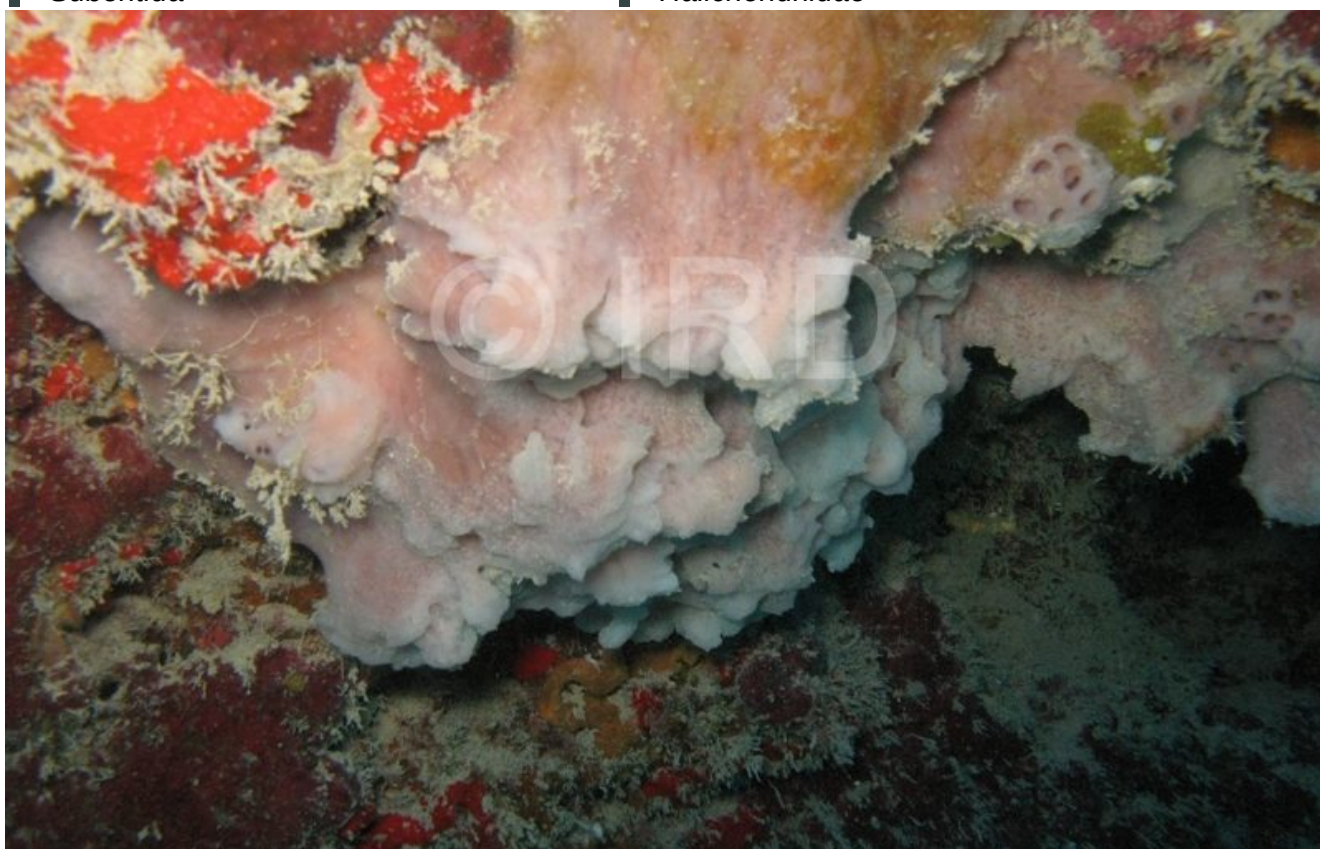
K Hall (2014). QM4720 Halichondria (Halichondria) sp. (OTU QM4720) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Halichondria (Halichondria) sp. (OTU QM4804) **(OTU QM4804)**

Order
Suberitida

Family
Halichondriidae



External characters

massive subspherical, lobate, moderately small fistules, found under overhangs

Colour

pale brown, covered with sediment and detritus in situ

Skeletal Characters

Oscules	few large oscules on fistules
Texture	firm but compressible, dense construction
Surface_Ornamentation	smooth aside from large fistules with terminal oscules
Ectosomal_Skeleton	distinct ectosomal palisade of paratangential oxeads forming thick cortical region
Choanosomal_Skeleton	halichondroid reticulation of long oxeads with only vague orientation towards the surface, predominantly spiculiferous with only light collagen
Megascleres	long robust oxeads
Microscleres	nil
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Tahiti

In the Pacific Ocean: Vanuatu (Espiritu Santo)

Ecology and habitat

Found on the outer reef slope, near the pass and in the lagoon on pinacles.

J Hooper (2014). QM4804 Halichondria (Halichondria) sp. (OTU QM4804) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Halichondria* sp. (4902) (OTU QM4902)**

Order
Suberitida

Family
Halichondriidae



External characters

Firm and porous.

Dimensions

Ø < 10 cm

Colour

Beige

Skeletal Characters

—

Distribution

In French Polynesia: Austral islands

Ecology and habitat

On eroded slab, in a bay with dead corals.



***Halichondria* sp. (4903) (OTU QM4903)**

Order
Suberitida

Family
Halichondriidae



External characters

—

Colour

Dark grey.

Skeletal Characters

—

Distribution

In French Polynesia: Austral islands.

Ecology and habitat

On the outer reef slope.



***Halichondria* sp. (4904) (OTU QM4904)**

Order
Suberitida

Family
Halichondriidae



External characters

Encrusting, gluing, soft.

Colour

Whitish

Skeletal Characters

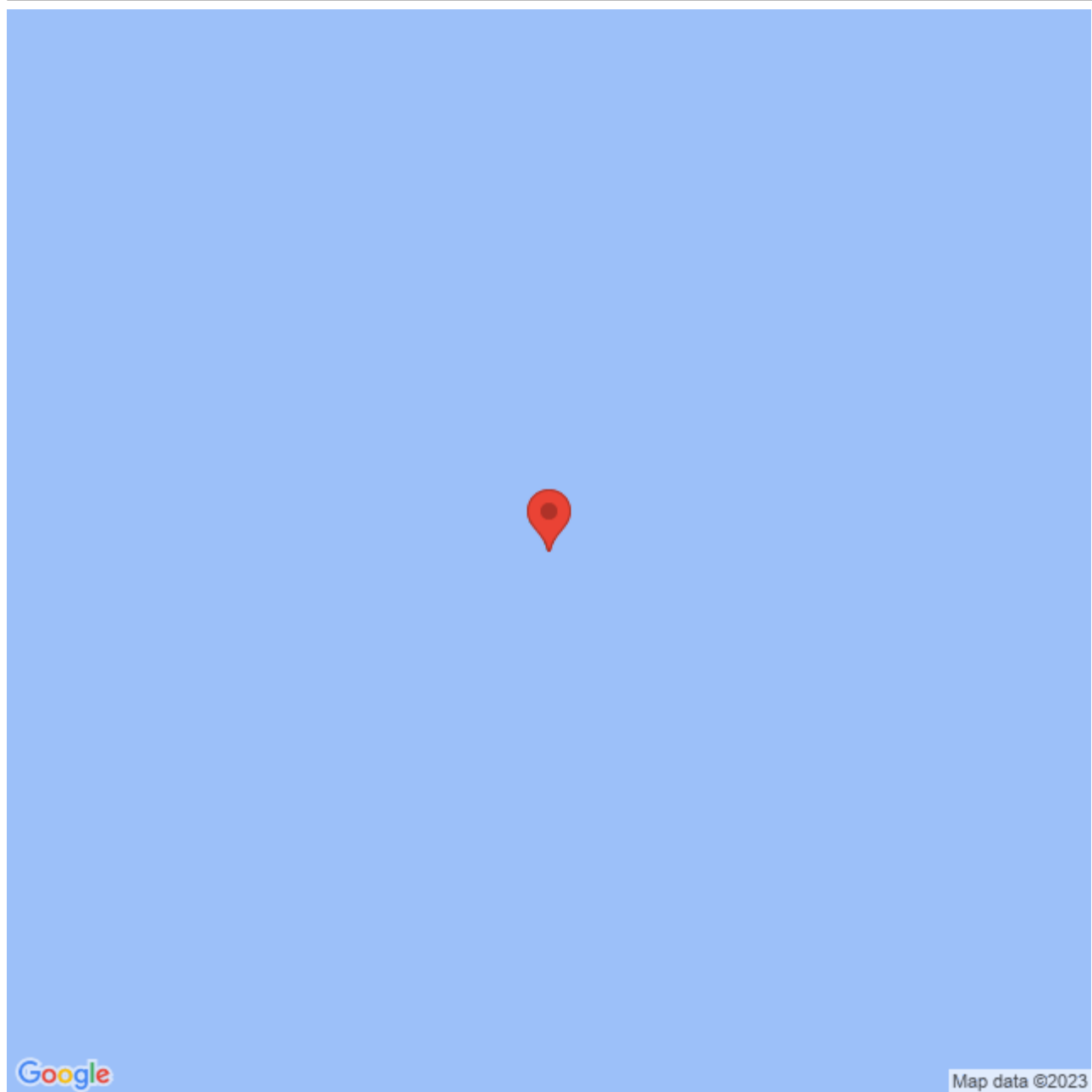
—

Distribution

In French Polynesia: Austral islands

Ecology and habitat

On the outer reef slope.



***Halichondria* sp. (4905) (OTU QM4905)**

Order
Suberitida

Family
Halichondriidae



External characters

Encrusting, soft, smooth.

Colour

Yellow

Skeletal Characters

—

Distribution

In French Polynesia: Society islands

Ecology and habitat

On the inner rim of the pass, on hard substrate.



***Hymeniacidon* sp. (4898) (OTU QM4898)**

Order
Suberitida

Family
Halichondriidae



External characters

Encrusting, soft.

Colour

~Brown underwater, pink-orange outside.

Skeletal Characters

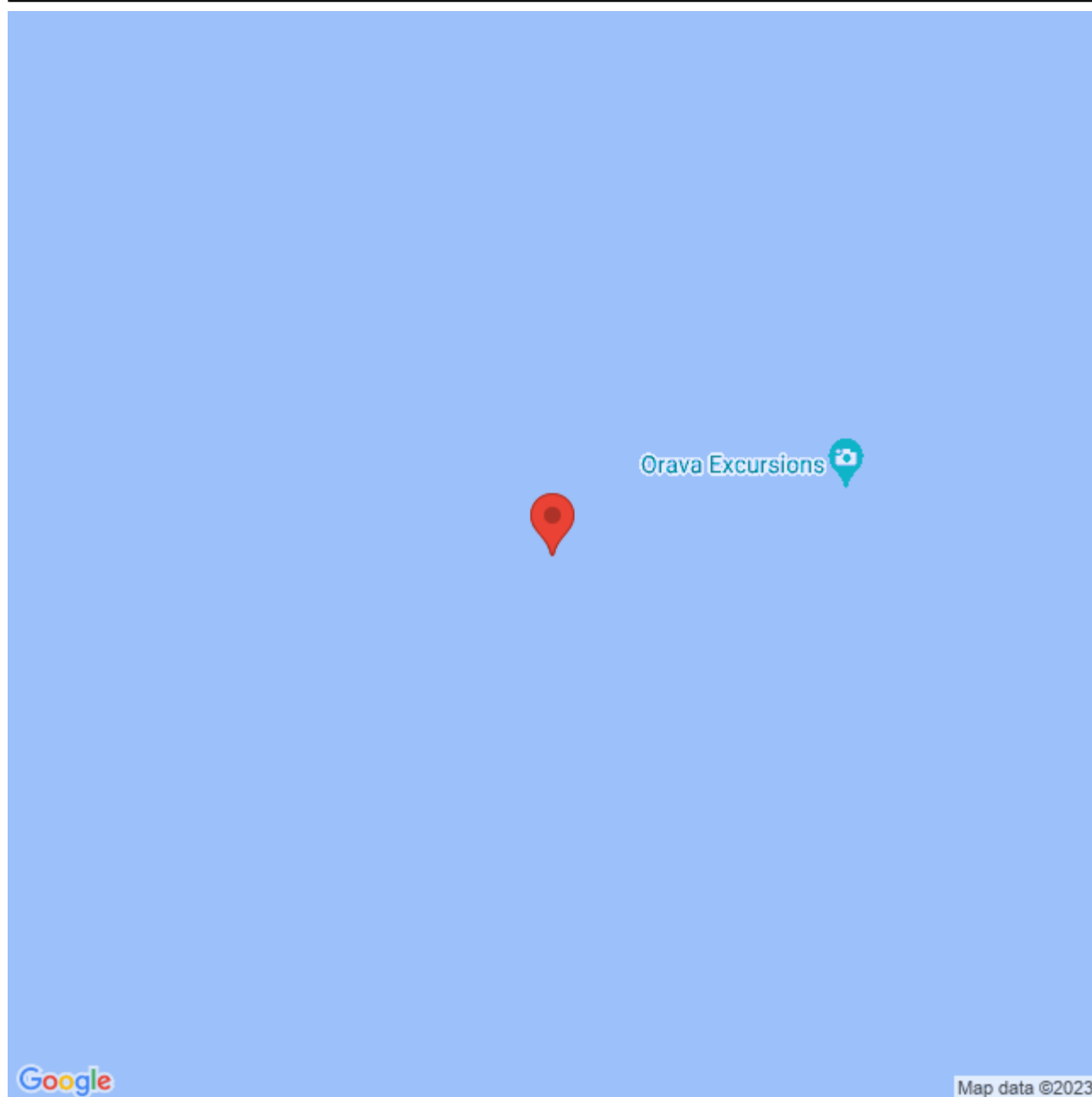
—

Distribution

In French Polynesia: Tuamotu islands

Ecology and habitat

In the lagoon, on pinnacle, in shell sand, with halimeda.



***Spongosorites* sp. (4889) (OTU QM4889)**

Order
Suberitida

Family
Halichondriidae



External characters

Encrusting, firm and smooth.

Colour

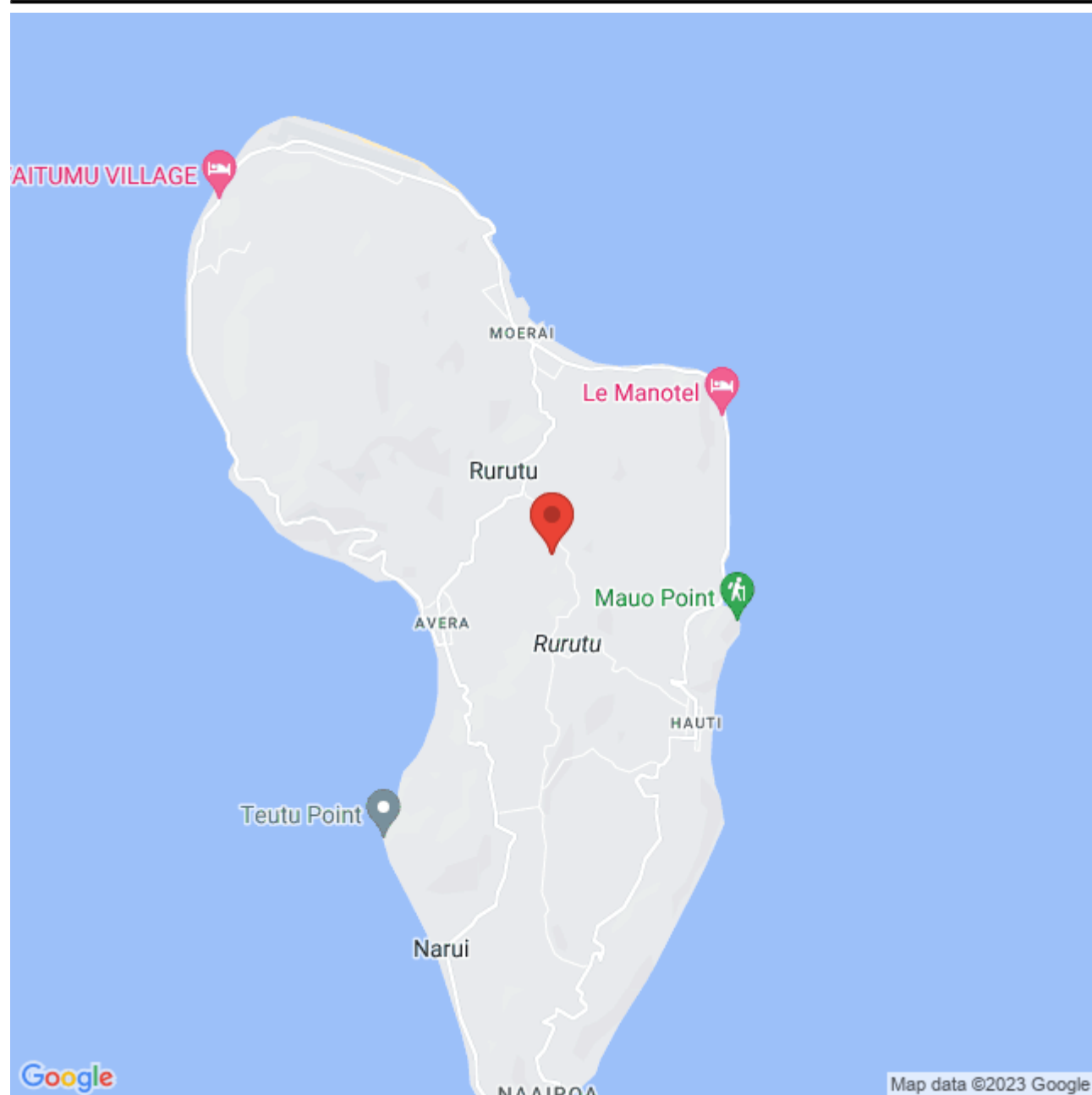
Yellow

Distribution

In French Polynesia: Austral islands

Ecology and habitat

On the fringing reef slope.



***Spongosorites* sp. (OTU QM4762) (OTU QM4762)**

Order
Suberitida

Family
Halichondriidae



External characters

massive, fused digits, with basal attachment; incorporates shells at base.

Colour

interior dark cream, exterior pinkish at base, fading to cream at apex in ethanol.

Skeletal Characters

Oscules	sparse, few, small, round, ~2 mm (d), apical on digits.
Texture	sandpapery, tough, compressible, slowly resilient.
Surface_Ornamentation	smooth, rubbery, rugose, folds deep, slightly sandpapery in texture, slightly hispid.
Ectosomal_Skeleton	surface echinated by large oxeads; oxeads in brushes at ends of primary tracts.
Choanosomal_Skeleton	reticulate; vaguely plumose reticulation; oxeads arranged into vague tracts which end with brushes that echinate the surface.
Megascleres	oxeads: 2 classes class 1: large, thick, slightly tylote at one end; class 2: finer, smaller, ends rounded, gently tapering.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Society archipelago

Ecology and habitat

In the lagoon, on the inner reef slope.

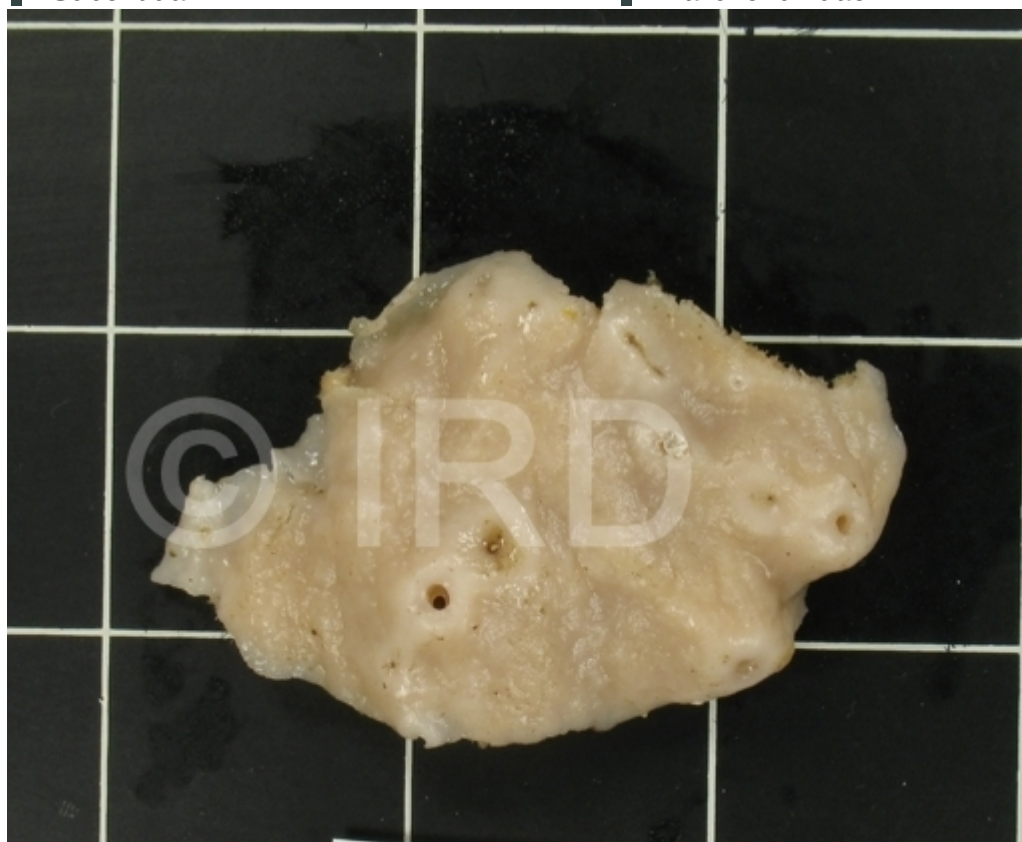
K Hall (2014). QM4762 Spongosorites sp. (OTU QM4762) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Topsentia* sp. (OTU QM4695) (OTU QM4695)**

Order
Suberitida

Family
Halichondriidae



External characters

thickly encrusting, forms mat, ~5 cm (d).

Colour

white in life; white in ethanol.

Skeletal Characters

Oscules	apical to raised sections of sponge.
Texture	brittle, thick, detachable surface layer covers soft, friable, pulpy choanosomal region.
Surface_Ornamentation	smooth and undulating, rising in sections to form mounds with apical oscules.
Ectosomal_Skeleton	small oxeas in dense bouquets, forming thick crust.
Choanosomal_Skeleton	larger oxeas and strongyloxea scattered throughout, without any clear organisation; mesohyl light, patchy throughout.
Megascleres	oxeas: 2 classes; strongyloxeas.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: west Tuamotu and south Marquesas islands

Ecology and habitat

On the outer reef slope in Tuamotu. On the rocky wall / slope in Marquesas.

P. Sutcliffe (2014). QM4695 *Topsentia* sp. (OTU QM4695) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Suberitidae

***Suberites* sp. (4882) (OTU QM4882)**

Order
Suberitida

Family
Suberitidae



External characters

Soft, flexible.

Dimensions

~ 2-3 cm

Colour

Orange

Skeletal Characters

—

Distribution

In French Polynesia: Marquesas islands.

Ecology and habitat

On rocky slope.



***Suberites* sp. (OTU QM3294) (OTU QM3294)**

Order
Suberitida

Family
Suberitidae



External characters

thickly encrusting, forming cushion-like mounds.

Colour

yellow in life; light brown in ethanol; stains ethanol pale yellow.

Skeletal Characters

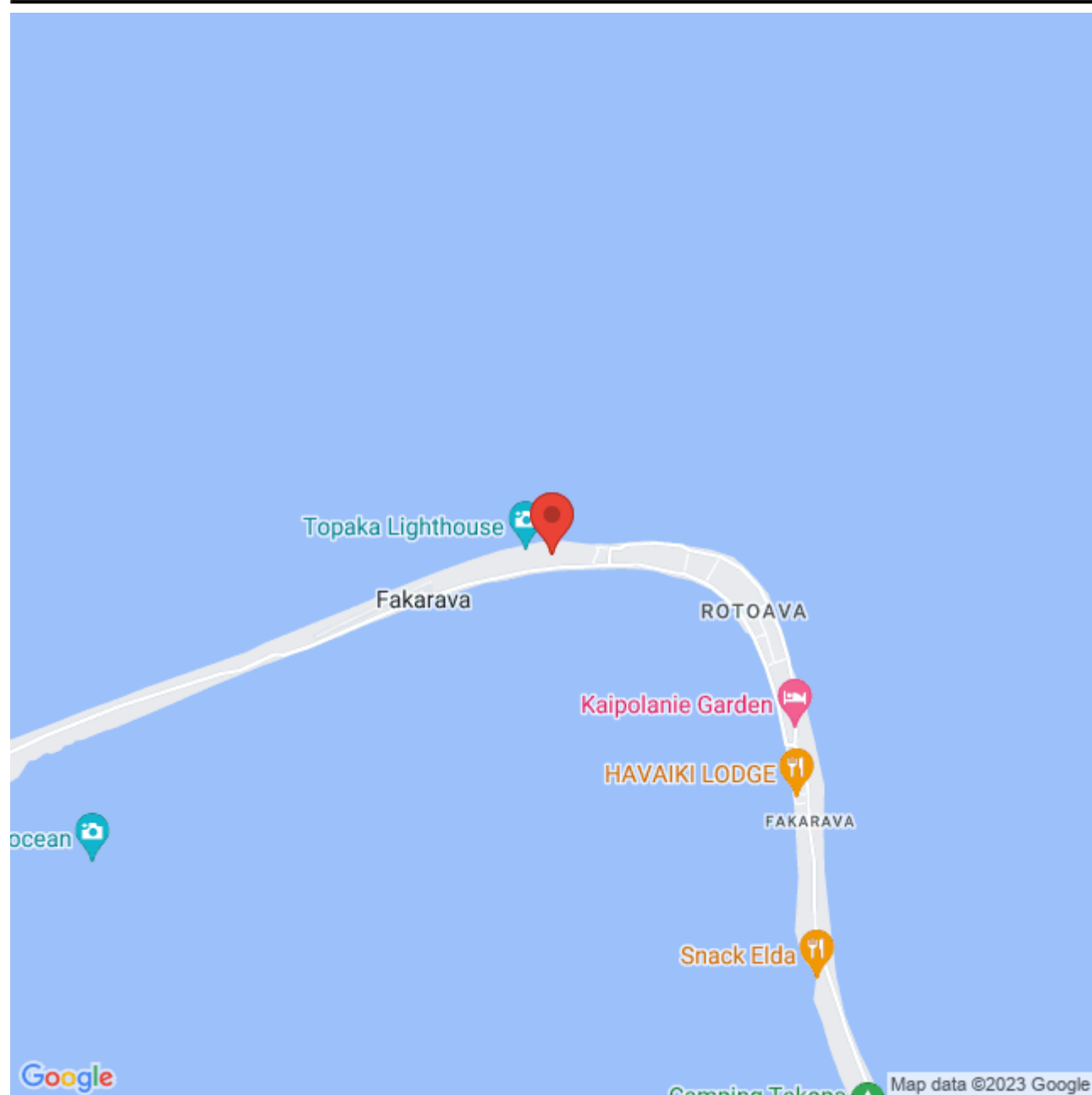
Oscules	very small, numerous, scattered evenly over upper surface.
Texture	soft, easily torn.
Surface_Ornamentation	soft, compressible choanosomal region covered by thin surface layer; small, numerous oscules create distinctive pattern on surface.
Ectosomal_Skeleton	small, robust tylostyles form bouquets at surface; ectosome not well represented in section, but bouquets seen intermittently.
Choanosomal_Skeleton	very long, thin tylostyles in dense confusion.
Megascleres	tylostyles: 2 size classes.
Microscleres	nil.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Tuamotu and Marquesas archipelagos

Ecology and habitat

On the rocky slope (Marquesas); In the lagoon, on pinacles (Tuamotu)



Order: Tetractinellida

Family: Ancorinidae

***Rhabdastrella* sp. (4891) (OTU QM4891)**

Order
Tetractinellida

Family
Ancorinidae



External characters

“Boudin” shape of the sample
Smooth surface appearance
Soft consistency

Dimensions

<5 cm Ø

Colour

Brown

Skeletal Characters

Fill here

Distribution

In French Polynesia : Austral and Society archipelago is.

Ecology and habitat

On hard substrate, in the lagoon or in a bay.



***Rhabdastrella* sp. (OTU QM4875) (OTU QM4875)**

Order
Tetractinellida

Family
Ancorinidae



External characters

massive lobate encrusting under overhang

Colour

white and partially silt covered alive, off white on deck

Skeletal Characters

Oscules	many of which have small oscules on the apex or lateral sides of bulbs
Texture	firm, harsh, barely compressible
Surface_Ornamentation	surface lumpy with low bulbs
Ectosomal_Skeleton	ectosomal skeleton consists of a thick crust of oxyspheraster euasters with a large centrum (these appear to differ from spherasters of <i>Geodia</i>)
Choanosomal_Skeleton	choanosome with irregular tracts of long robust oxeads in more-or-less disorganised halichondroid skeleton; mesohyl moderately heavy with rare orthotriaenes (ie only one seen in the sections)
Megascleres	shorter thin oxeads, sometimes curved otherwise straight
Microscleres	abundant toxa-like rhabds that have a central bend and have either straight or slightly reflexed arms, occurring singly or in trichodragmata bundles, and scattered oxyspheraster euasters with large centrams and rarer oxyaster euasters without a centrum.
Mudmap_Author	JNA Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

In caves

JNA Hooper (2014). QM4875 *Rhabdastrella* sp. (OTU QM4875) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Scleritodermidae

***Microscleroderma* sp (2) (-)**

Order
Tetractinellida

Family
Scleritodermidae



External characters

Massive, hard, brittle

Colour

Whitish

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

In caves, on hard substrate.



***Microscleroderma* sp. (1) (-)**

Order
Tetractinellida

Family
Scleritodermidae



External characters

Blade, smooth, hard

Dimensions

~ 10cm

Colour

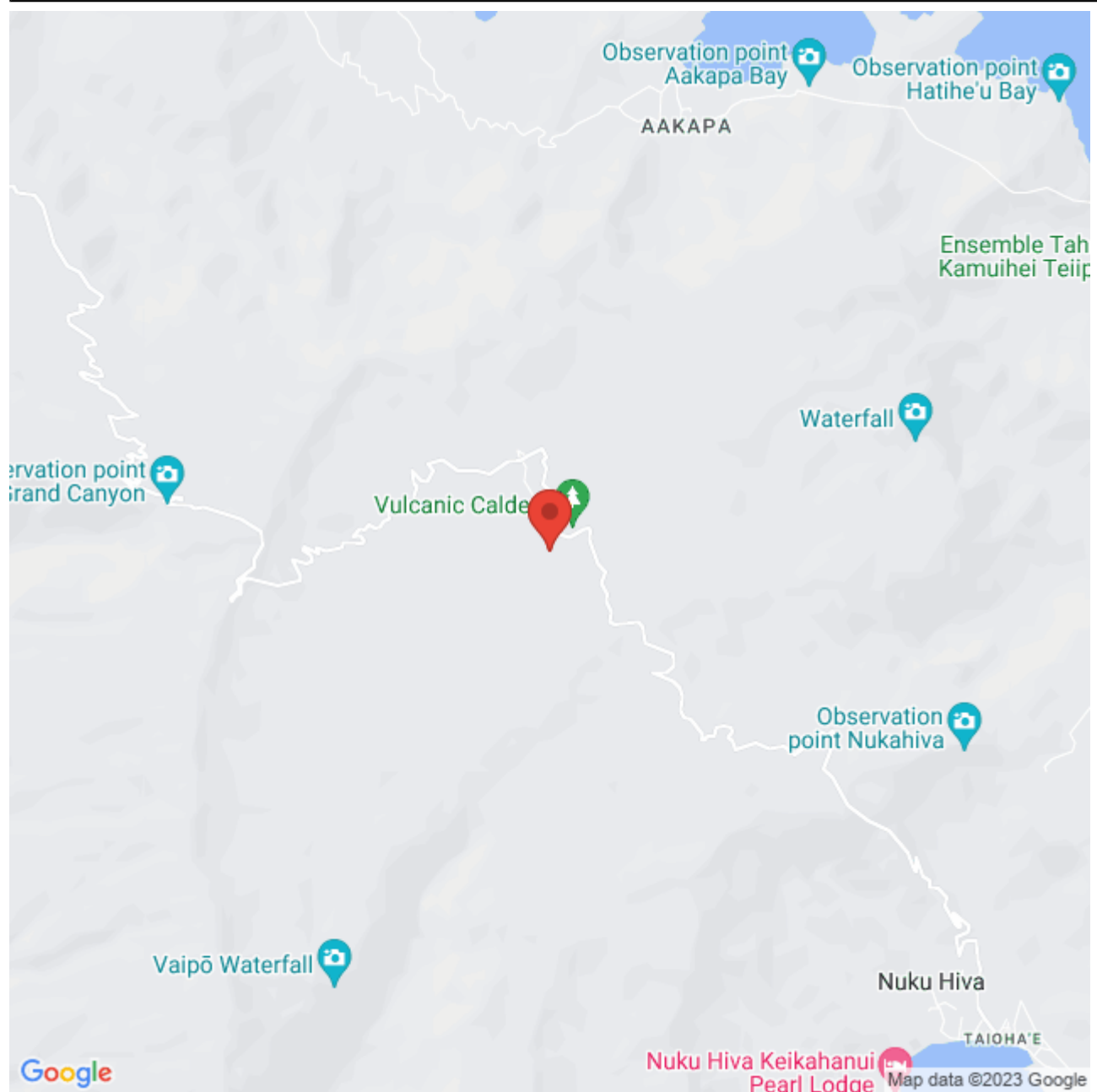
Beige

Distribution

In French Polynesia: Marquesas archipelago is

Ecology and habitat

In caves, on hard substrate.



Family: Siphonidiidae

***Gastrophanella* sp. (-)**

Order
Tetractinellida

Family
Siphonidiidae



External characters

Massive, smooth, brittle

Dimensions

< 10 cm

Colour

Beige

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

In caves, on hard substrate.



Family: Tetillidae

***Cinachyrella* sp (4880) (OTU QM4880)**

Order
Tetractinellida

Family
Tetillidae



External characters

Fill here

Dimensions

Fill here

Colour

Fill here

Skeletal Characters

Fill here

Ecology and habitat

Fill here

Distribution

Fill here

Possible Confusions

Fill here

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

In caves.



***Cinachyrella* sp. (OTU QM2119) (QM2119)**

Order
Tetractinellida

Family
Tetillidae



External characters

spherical.

Colour

white, covered with silt in life; white, covered with silt in ethanol.

Skeletal Characters

Oscules	numerous porocalyces scattered regularly over surface.
Texture	firm, barely compressible.
Surface_Ornamentation	dense, spiculate, with silt covering; even, hispid.
Ectosomal_Skeleton	multispicular, with a continuous palisade of megascleres paratangential to surface, fine silt layer partially obscures detail; thick layer of microxeas in confused arrangement in subectosomal region.
Choanosomal_Skeleton	radial arrangement of megascleres in pauci- to multispicular bundles, abundant microscleres in confused arrangement between bundles; mesohyl collagen light, moderately homogeneous.
Megascleres	oxeas: ~1600–2700 µm; anatriaenes.
Microscleres	microxeas: ~260 µm; sigmaspires: ~14 µm.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society archipelago is.

Pacific Ocean: Vanuatu

Ecology and habitat

In a muddy bay.

Queensland Museum (2014). QM2119 *Cinachyrella* sp. (OTU QM2119) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Cinachyrella* sp. (OTU QM4680) (OTU QM4680)**

Order
Tetractinellida

Family
Tetillidae



External characters

globular.

Colour

yellow in life; white in ethanol.

Skeletal Characters

Oscules	porocalyces scattered irregularly over surface.
Texture	firm, incompressible.
Surface_Ornamentation	thick white cortex visible where cut; choanosome appears cavernous.
Ectosomal_Skeleton	not apparent in section.
Choanosomal_Skeleton	oxeas in large, thick bundles.
Megascleres	oxeas; anatriaenes: 2 size classes; protriaenes: 2 size classes.
Microscleres	sigmaspires, microxeas.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

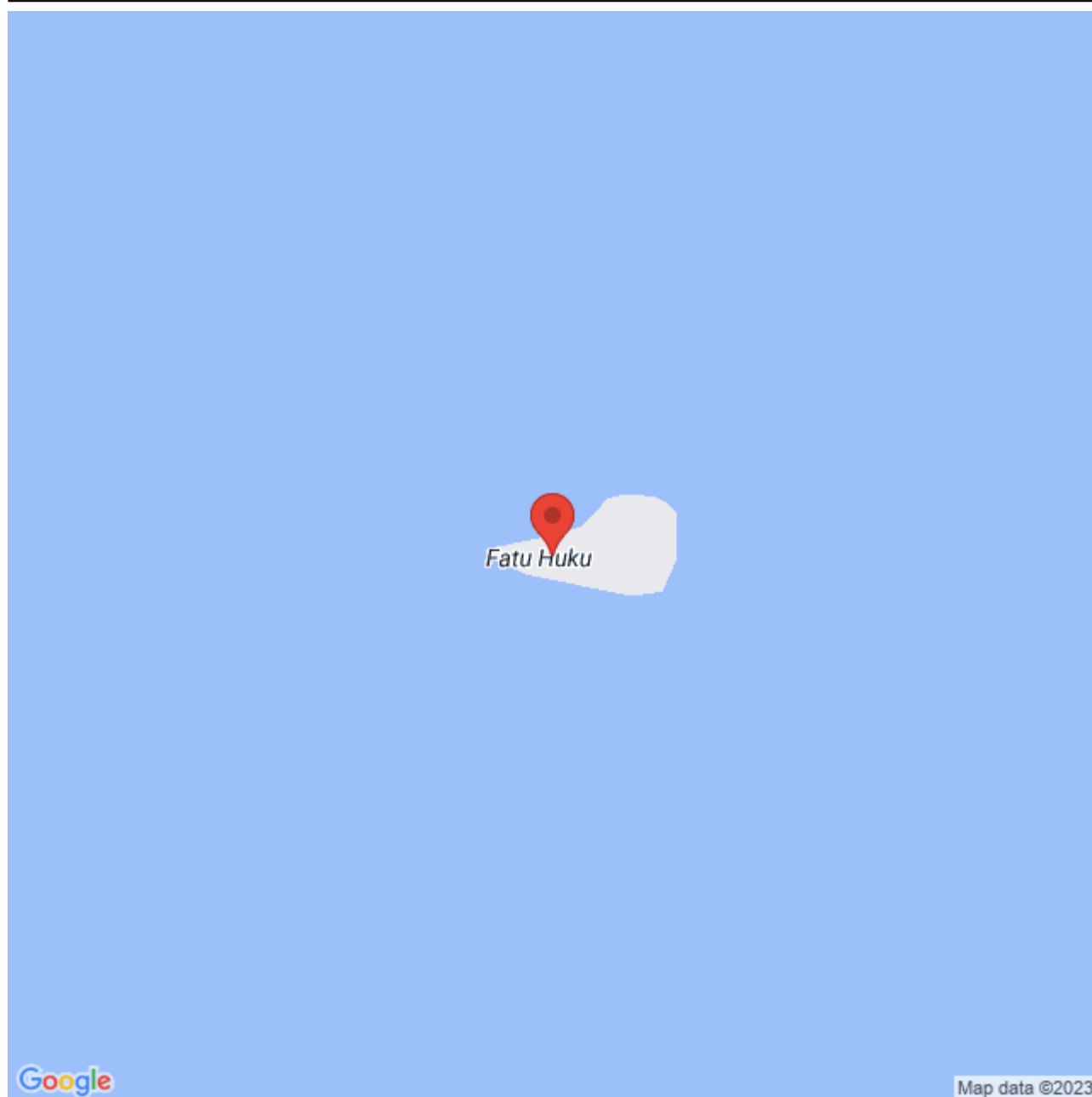
Distribution

In French Polynesia: Marquesas archipelago is.

Ecology and habitat

On rocky or sandy slope.

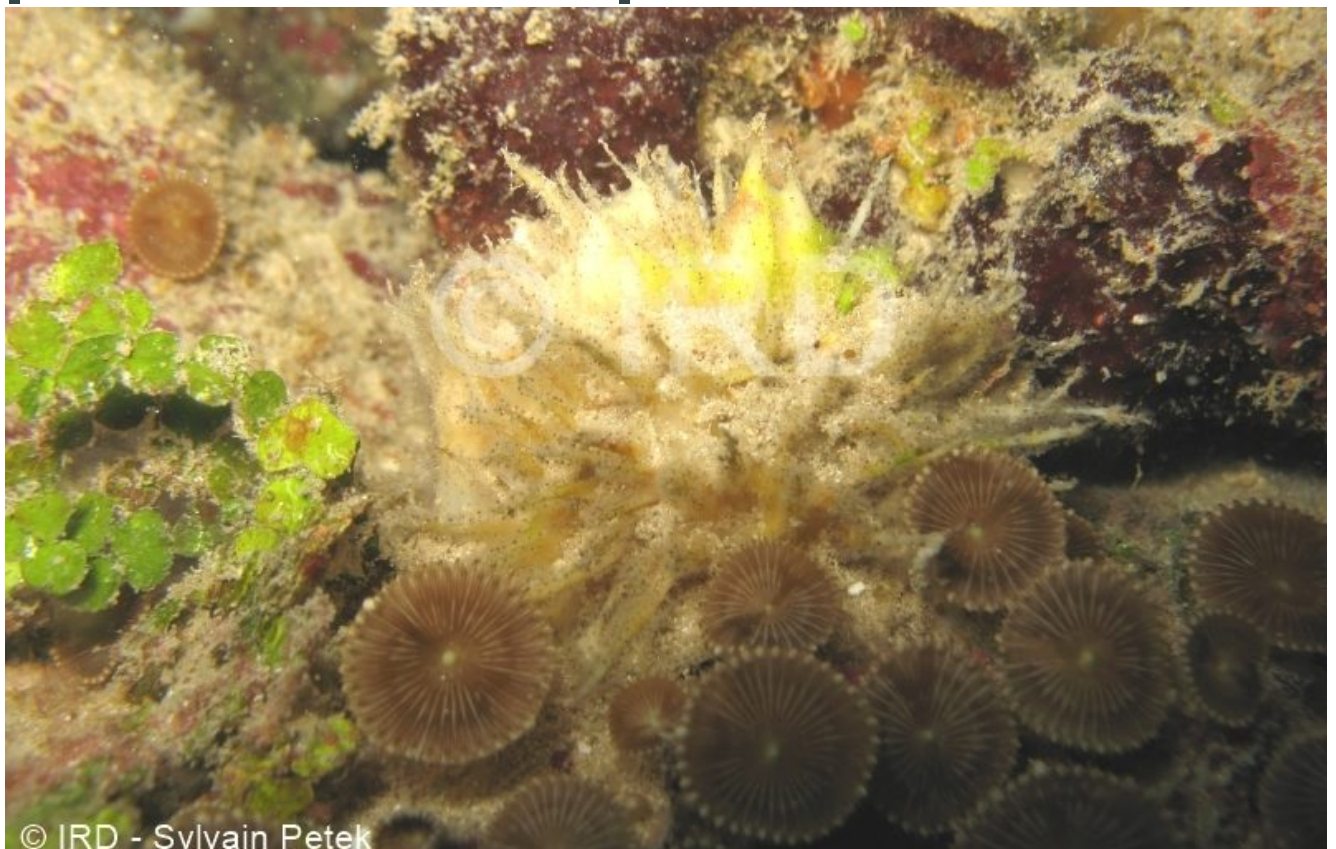
P Sutcliffe (2014). QM4680 *Cinachyrella* sp. (OTU QM4680) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Cinachyrella* sp. (OTU QM4827) (OTU QM4827)**

Order
Tetractinellida

Family
Tetillidae



External characters

spherical, spiky in situ, buds over surface

Colour

bright yellow with specks of black

Skeletal Characters

Oscules	no porocalyces observed, but several large oscules visible between surface spikes
Texture	stiff, spiky
Surface_Ornamentation	large spikes prominent in situ
Ectosomal_Skeleton	surface reinforced with small angular oxeas, large oxeas protrude through forming surface spikes; black pigment cells speckle ectosomal region
Choanosomal_Skeleton	radial
Megascleres	long straight robust oxeas, ranging down to shorter version of the same spicule; small angular oxeas; no triaenes observed but may be rare or broken
Microscleres	sigmaspires, potentially microxeas but these may be smaller forms of megascleres
Mudmap_Author	J Hooper
Mudmap_Editor	J Hooper

Distribution

In French Polynesia: Society archipelago is.

Pacific Ocean: Papua New Guinea

Ecology and habitat

Outer reef slope.

J Hooper (2014). QM4827 *Cinachyrella* sp. (OTU QM4827) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Craniella abracadabra* (OTU QM3744)**

Order
Tetractinellida

Family
Tetillidae



External characters

globular, not stalked.

Colour

yellow in life; beige to white in ethanol.

Skeletal Characters

Oscules	no procalices present
Texture	firm, incompressible.
Surface_Ornamentation	smooth surface, conulose; conules high, tips extend into elongated tracts of spicules extending approximately 3 cm from surface.
Ectosomal_Skeleton	distinct from choanosome; smaller, specialised oxeads at surface; no cortical region observed in sections of QM G331102.
Choanosomal_Skeleton	radial; large bundles of oxeads form dense radial tracts; long, thin proatriaenes, large anatriaenes also present.
Megascleres	oxeads: 2 size classes; anatriaenes: 2 size classes; proatriaenes.
Microscleres	sigmaspires.
Mudmap_Author	P Sutcliffe
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Marquesas archipelago is.

Ecology and habitat

Sand plain with halimeda sp.

P Sutcliffe (2014). QM3744 Craniella abracadabra de Laubenfels, 1954. In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Order: Verongiida

Family: Aplysinellidae

Aplysinella rhax (OTU QM2027)

Order
Verongiida

Family
Aplysinellidae



External characters

thickly encrusting, short projections occasionally erect on surface.

Colour

rusty red colour in life; unknown colour on deck; dark brown in ethanol.

Skeletal Characters

Oscules	conspicuous, discrete, apical on erect projections, perhaps with siphon extending along side of projection before apex, with raised membranous lip; oscules not visible in preserved specimens.
Texture	soft, compressible.
Surface_Ornamentation	opaque, membranous, optically smooth; uneven, with irregular, bumpy surface overlying small clumps of fibres which barely project through surface and visible only in preserved specimens where surface membrane has collapsed.
Ectosomal_Skeleton	membranous, unarmoured, regularly pushed up into complex conules by clumps of several fibres; membrane darkly pigmented, highly collagenous.
Choanosomal_Skeleton	fibrous; irregular reticulation of fibres; fibres possibly dendritic, cored fully with sand detritus; mesohyl collagen dense, highly granular, contains rare fine sand detritus.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Marquesas archipelago is.

Pacific Ocean: Australia, Fiji, Vanuatu, Tonga, Palau

China sea: Malaysia

Ecology and habitat

On rocky slope.

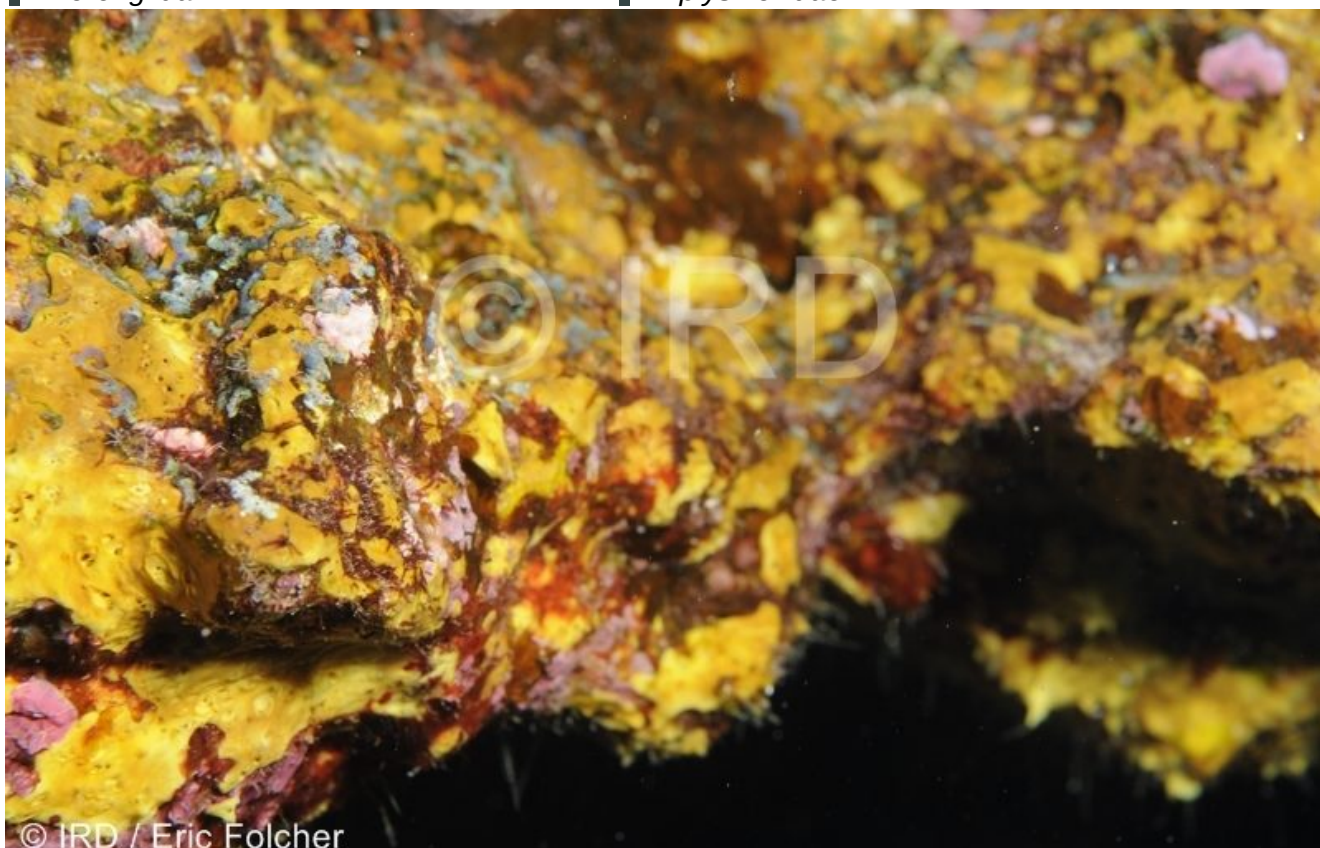
J Hooper (2014). QM2027 *Aplysinella rhax* (de Laubenfels, 1954). In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Aplysinella* sp. (OTU QM1719) (OTU QM1719)**

Order
Verongiida

Family
Aplysinellidae



External characters

erect, bulbous.

Colour

dark purple in ethanol.

Skeletal Characters

Oscules	several, poorly formed breaks in surface.
Texture	firm, compressible, fibrous.
Surface_Ornamentation	numerous, small, regularly dispersed conulose projections.
Ectosomal_Skeleton	membranous; collagen thick, heavily pigmented.
Choanosomal_Skeleton	fibres moderate-sized, bark components dominant over pith; mesohyl collagen heavily pigmented, some foreign spicules embedded.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

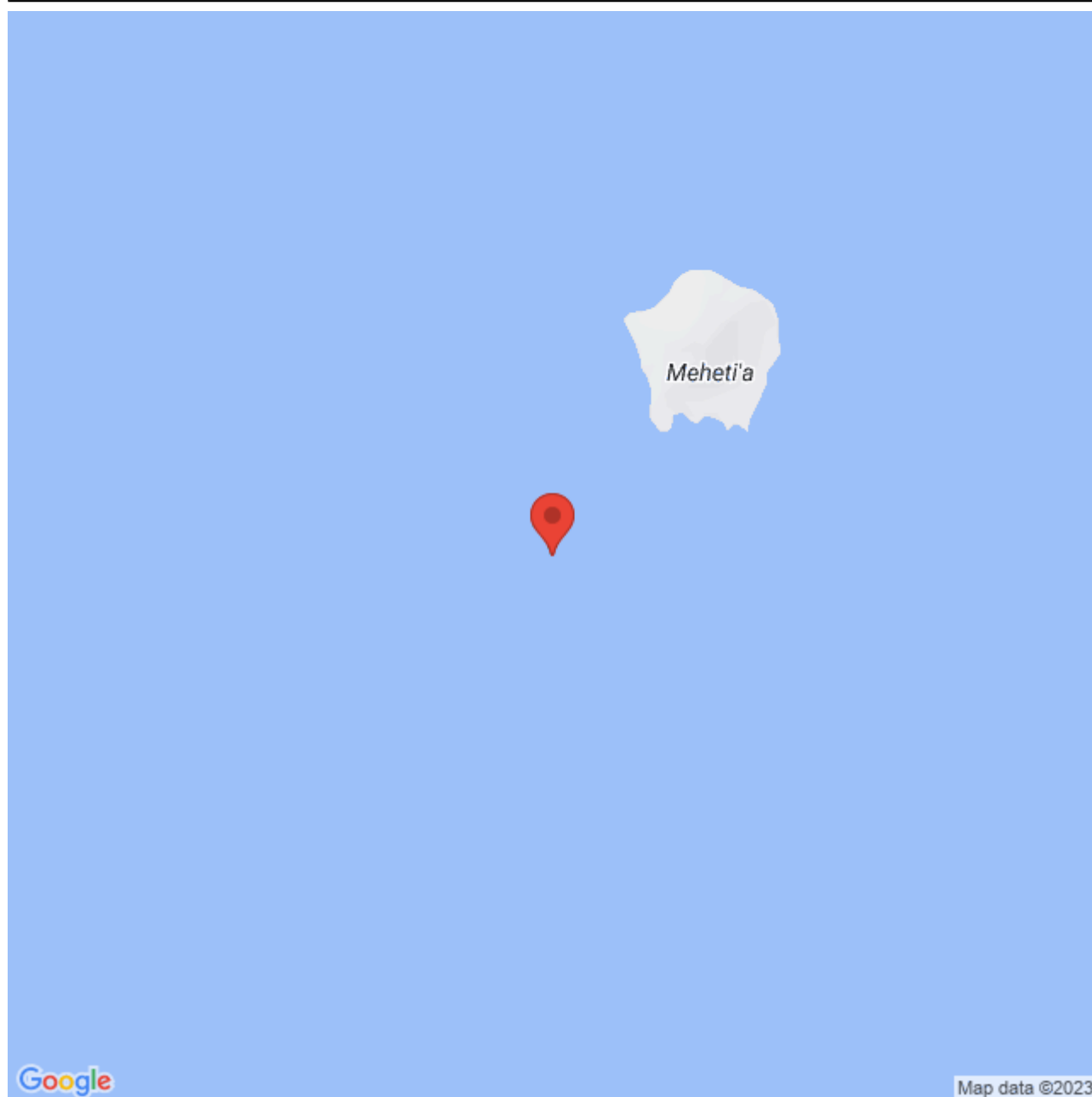
Distribution

In French Polynesia: Society archipelago is.

Pacific Ocean: Fiji, Solomon islands, Australia

Ecology and habitat

On coral fringing reef.



***Suberea ianthelliformis* (OTU QM0012)**

Order
Verongiida

Family
Aplysinellidae



External characters

massive or club-shaped, subspherical, encrusting.

Colour

golden yellow, mustard yellow or yellow-brown in life; pigment aerophobic.

Skeletal Characters

Oscules	small, between conules.
Texture	firm, barely compressible.
Surface_Ornamentation	conules prominent, evenly distributed.
Ectosomal_Skeleton	membranous, thick, fibres protrude into surface conules.
Choanosomal_Skeleton	fibres large, widely spaced, heavily striated; mesohyl collagen very heavy, some detritus.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Society, Marquesas, Tuamotu archipelago is.

Pacific Ocean: Fiji, Solomon islands, Australia, Philippines

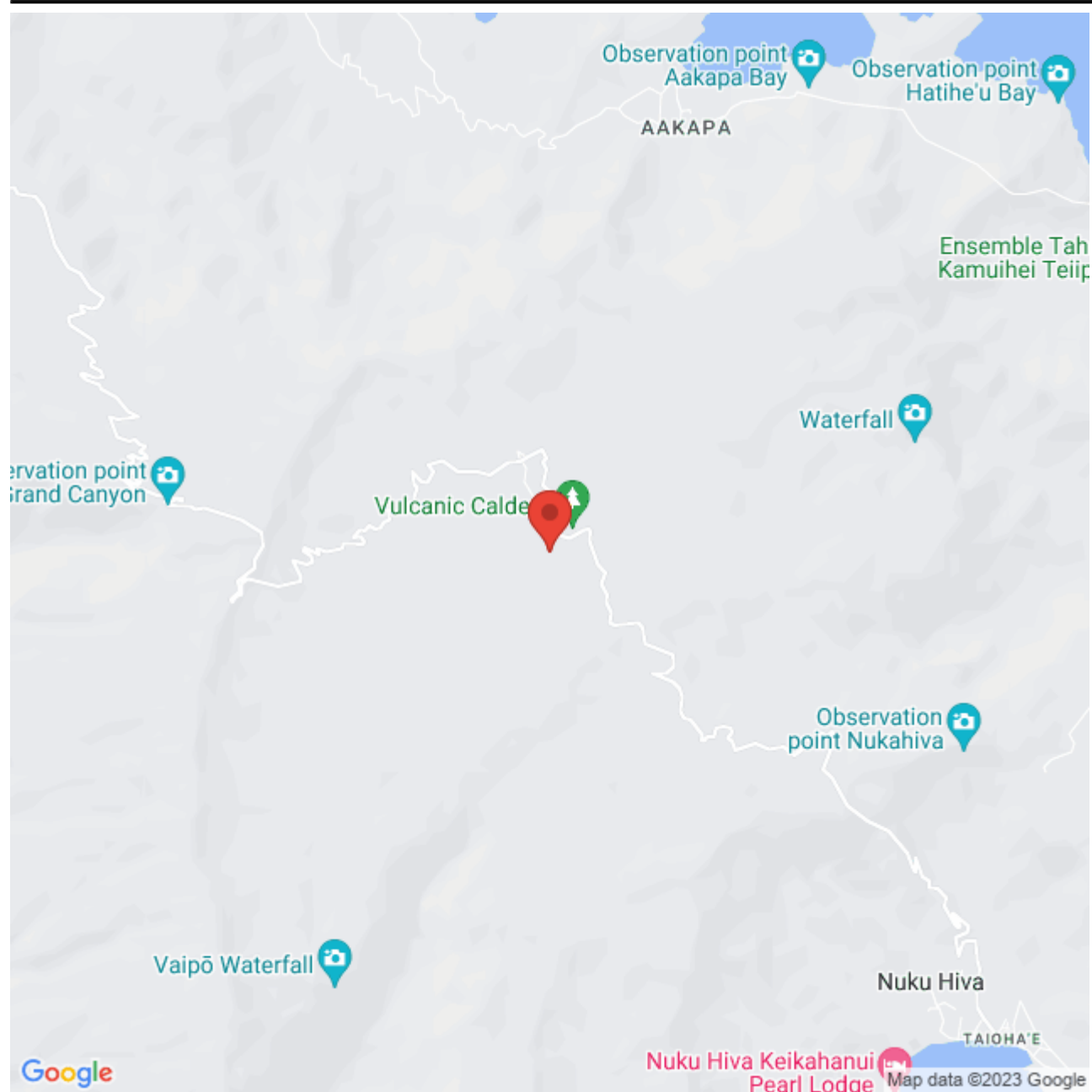
Indian Ocean: Western Australia

China sea: Malaysia

Ecology and habitat

Outer reef slope or on rocky slope in Marquesas is..

J Hooper (2014). QM0012 *Suberea ianthelliformis* (Lendenfeld, 1889). In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Suberea* sp. (4883) (QM4883)**

Order
Verongiida

Family
Aplysinellidae



External characters

Massive, shapeless, smooth

Dimensions

~ 10-15cm

Colour

Yellow

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

In caves.



***Suberea* sp. (OTU QM2093) (OTU QM2093)**

Order
Verongiida

Family
Aplysinellidae



External characters

encrusting.

Colour

yellow in life; dark purple in ethanol.

Skeletal Characters

Oscules	few, small, scattered, on slightly raised areas.
Texture	slightly firm, compressible.
Surface_Ornamentation	detachable skin, smooth, heavily pigmented, opaque.
Ectosomal_Skeleton	densely collagenous.
Choanosomal_Skeleton	fibres rare; collagen dense, abundant spherulous cells.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

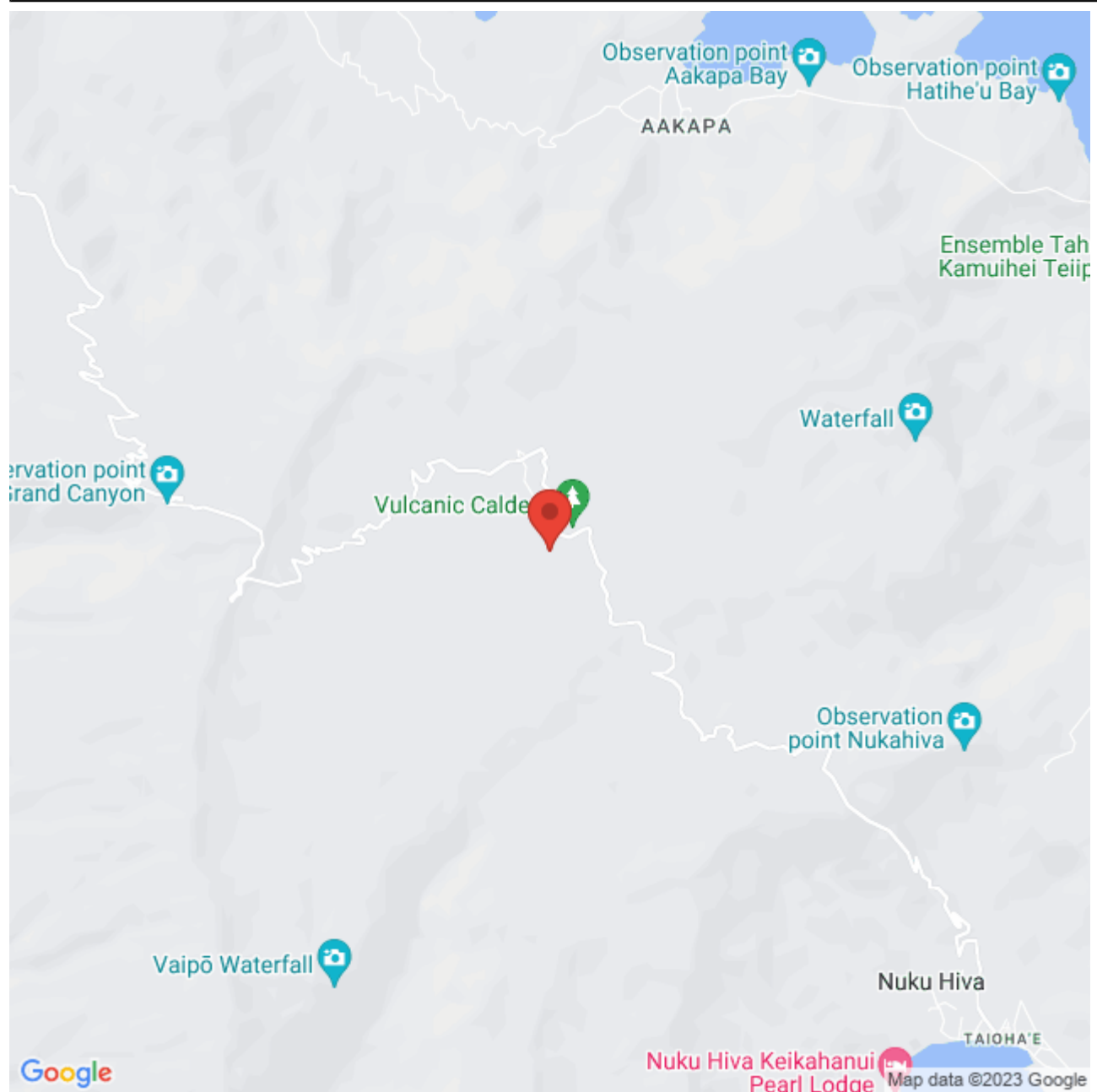
In French Polynesia: Society, Marquesas, Austral archipelago is.

Pacific Ocean: Fiji

Ecology and habitat

On rocky slope in Marquesas is.. Outer rim of the chanel in Austral is.. In muddy bay in Society is..

Queensland Museum (2014). QM2093 *Suberea* sp. (OTU QM2093) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Suberea* sp. (OTU QM2121) (OTU QM2121)**

Order
Verongiida

Family
Aplysinellidae



External characters

lobate, massive, with distinctly conulose surface; clumps with large oscules on each clump.

Colour

yellow in life; black in ethanol.

Skeletal Characters

Oscules	numerous, moderately sized, irregular openings level with surface; only occur between conules.
Texture	firm, compressible, harsh, fibrous.
Surface_Ornamentation	opaque, membranous; uneven, conulose, prominently sculptured.
Ectosomal_Skeleton	thick, darkly pigmented membrane.
Choanosomal_Skeleton	fibres widely-spaced, thick, permeate mesohyl, with poorly formed bark elements, seem to totally lack pith; mesohyl collagenous, darkly pigmented.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	J Hooper
Mudmap_Editor	K Hall

Distribution

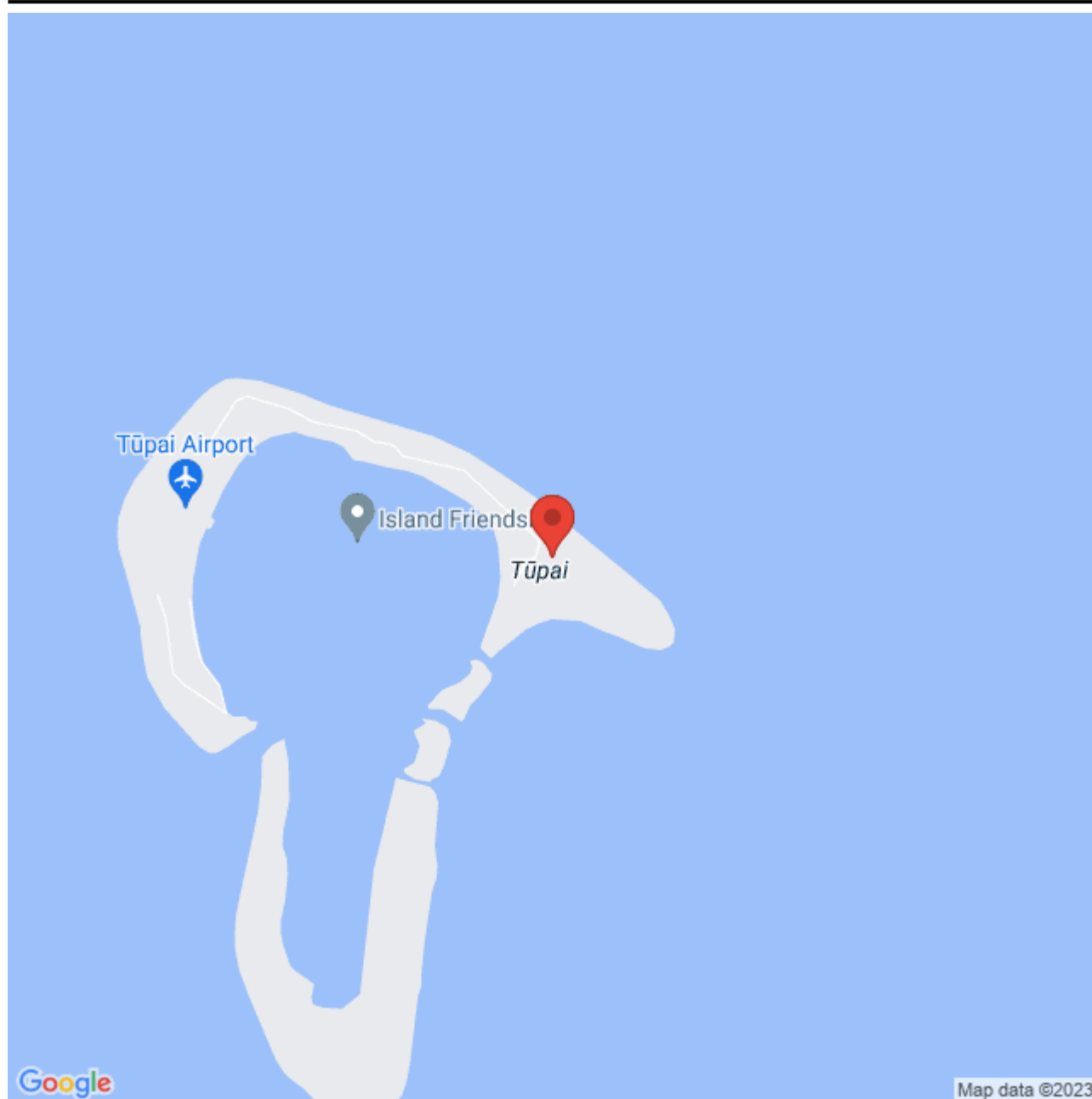
In French Polynesia: Society and Tuamotu archipelago is.

Pacific Ocean: Solomon islands, Vanuatu.

Ecology and habitat

Outer reef slope. In a muddy bay (Society is.)

Queensland Museum (2014). QM2121 *Suberea* sp. (OTU QM2121) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Suberea* sp. (OTU QM2872) (OTU QM2872)**

Order
Verongiida

Family
Aplysinellidae



External characters

massive, complex, very fleshy, encrusting.

Colour

sulphur yellow; yellow on deck; brown in ethanol.

Skeletal Characters

Oscules	sieve-plates.
Texture	firm, barely compressible, fibrous, tearable.
Surface_Ornamentation	large conules, membranous, opaque.
Ectosomal_Skeleton	dense layer of detritus in some areas only.
Choanosomal_Skeleton	fibres with distinct pith, filled with detritus, bark visible; some detritus in matrix, not bound by fibres; mesohyl collagen dense, slightly granular.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

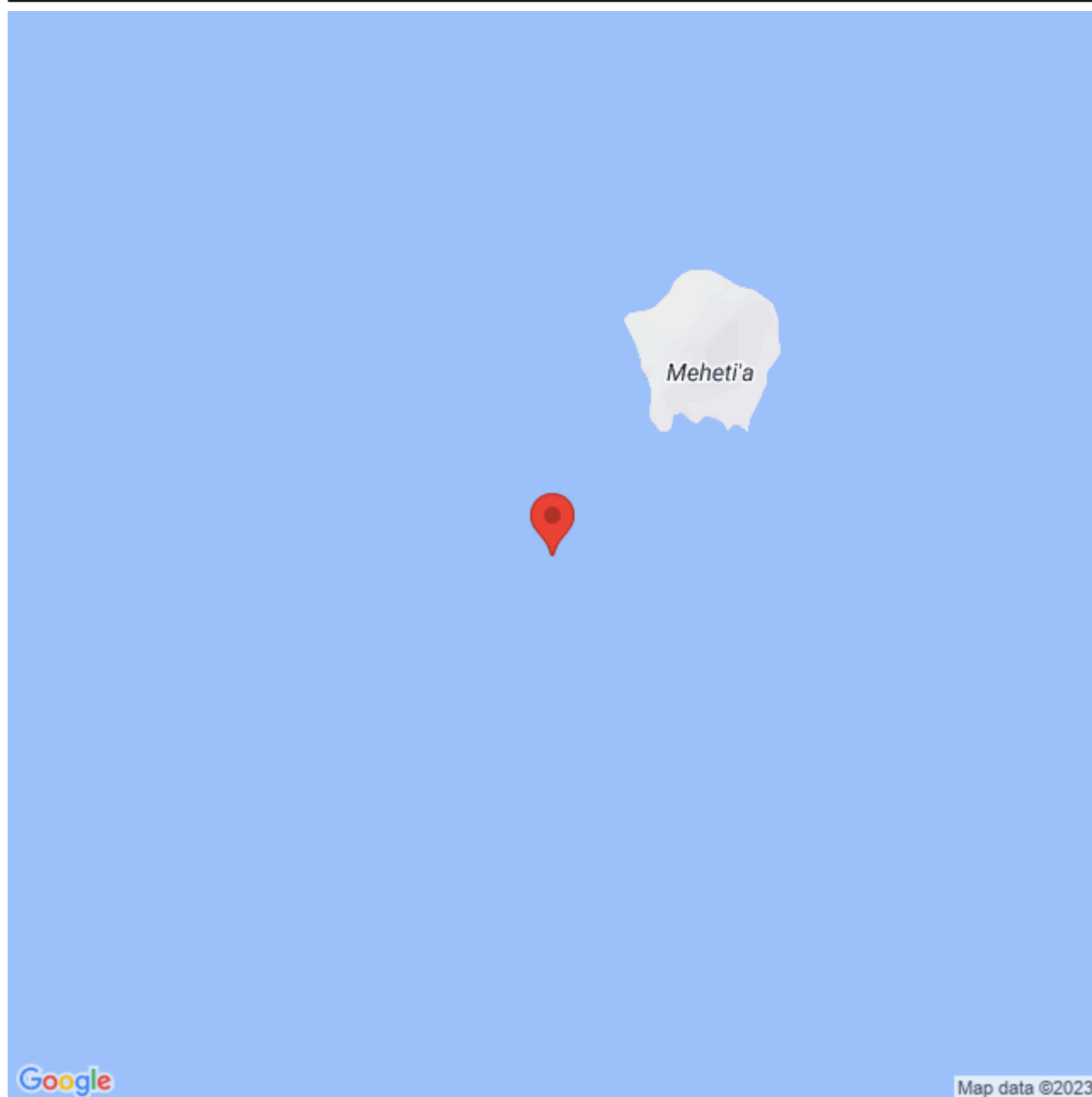
In French Polynesia: Society and Tuamotu archipelago is.

Pacific Ocean: Vanuatu

Ecology and habitat

Outer reef slope or fringing coral reef slope. In the lagoon on pinnacles in Tuamotu is.

K Hall (2014). QM2872 *Suberea* sp. (OTU QM2872) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



***Suberea* sp. (OTU QM4728) (OTU QM4728)**

Order
Verongiida

Family
Aplysinellidae



External characters

thinly encrusting; encrusts over coral rubble substrate; sheet-like.

Colour

buttery lemon yellow in life, blackened by algae; very dark maroon in ethanol.

Skeletal Characters

Oscules	none visible in ethanol.
Texture	very thin, slimy, plastic, smooth, easily detached from substrate, very easily torn.
Surface_Ornamentation	smooth, shiny, conulose, rubbery appearance.
Ectosomal_Skeleton	not conspicuously distinguished from choanosome; conules raised by large fibres which protrude though ectosome.
Choanosomal_Skeleton	fibrous; fibres large, sparse, laminated, lightly cored with sand and foreign spicules; mesohyl heavily pigmented, incorporates large amount of detritus (mostly foreign spicules).
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	Kathryn Hall

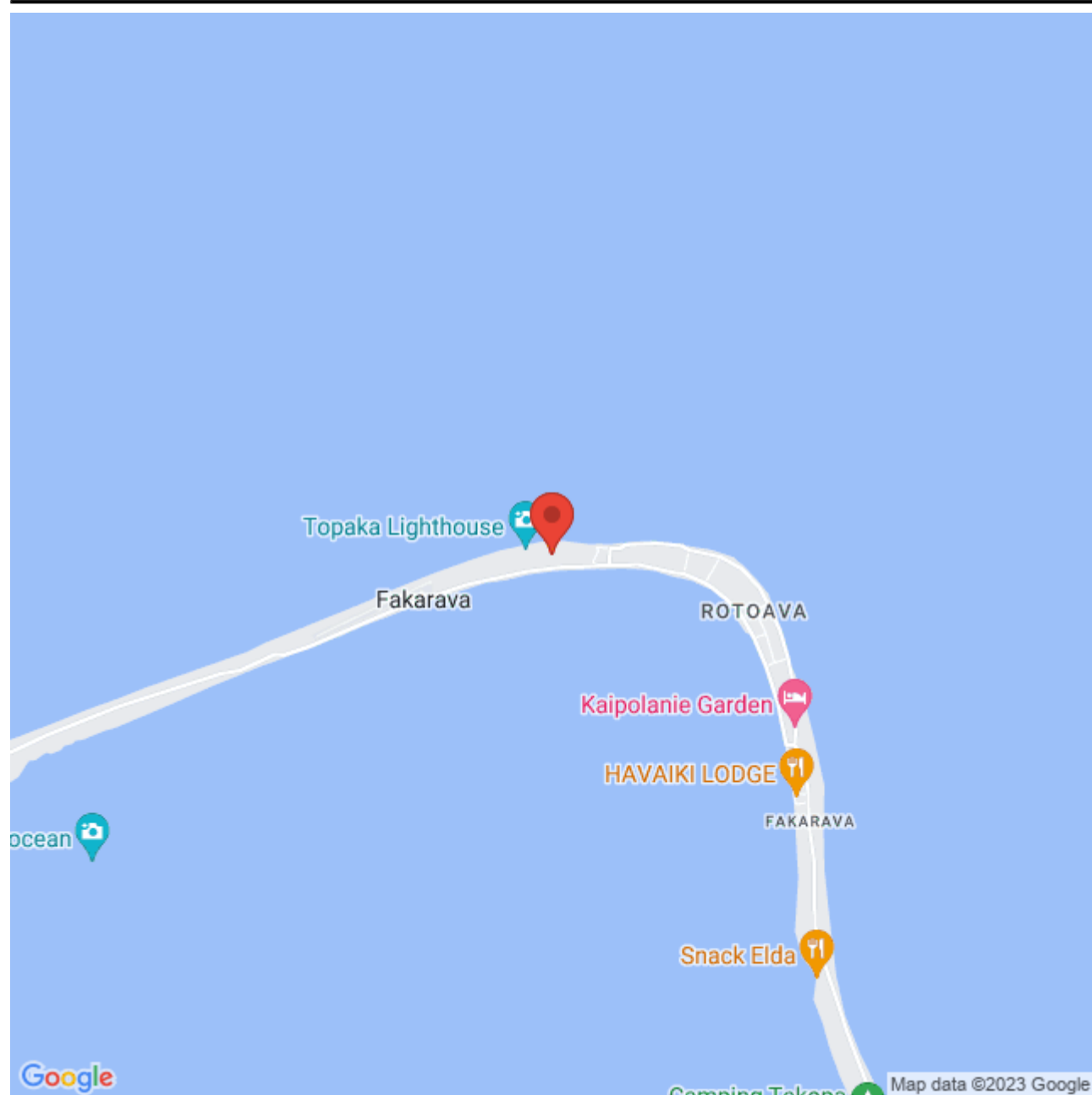
Distribution

In French Polynesia: Society and Tuamotu archipelago is.

Ecology and habitat

Outer reef slope.

K Hall (2014). QM4728 *Suberea* sp. (OTU QM4728) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: Aplysinidae

Aplysina sp. (OTU QM2370) (OTU QM2370)

Order
Verongiida

Family
Aplysinidae

External characters

thickly encrusting.

Colour

yellowish in life; brown in ethanol.

Skeletal Characters

Oscules	small, sessile, irregularly scattered.
Texture	soft, fragile, collapses out of water, very easily torn.
Surface_Ornamentation	finely conulose, membranous, fine cob-web like surface, opaque.
Ectosomal_Skeleton	membranous, very little detritus incorporated into surface and general mesohyl; collagen moderately dense, finely granular in appearance.
Choanosomal_Skeleton	collagen moderate, not as heavy as in ectosome; no differentiation between primary and secondary fibres; all fibres laminated with distinct pith; reticulation of fibres irregular.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

In French Polynesia: Austral archipelago is.

Pacific Ocean: Palau

Ecology and habitat

Outer reef slope.

Aplysina sp. (OTU QM2370) . In: Hall, K.A. & Hooper, J.N.A. (2014) SpongeMaps: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



Family: lanthellidae

***lanthella reticulata* (OTU QM2668)**

Order
Verongiida

Family
lanthellidae



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External characters

semi-circular or irregularly-shaped fan, ~10–25 cm (h, w), ~5–10 mm (thick), frequently prostrate or curled over, attached along entire length of lamella.

Colour

mandarin orange (YR 6/10), mimosa yellow (Y 8/12) and bluish violet (P 6/6-5/6) exterior in life; dark reddish purple (RP 5/2) on deck; dark reddish purple in ethanol.

Skeletal Characters

Oscules	~0.5–1.0 mm wide, regularly distributed, on one surface.
Texture	elastic, compressible.
Surface_Ornamentation	prominent well spaced multiple conules, ~5–7 mm (h), ~3–8 mm apart; surface spikey; very smooth, fleshy between conules.
Ectosomal_Skeleton	ectosome of poral surface ~147–136 µm (deep), strongly collagenous, honey-combed with inhalant apertures ~62–135 µm (w); ectosome of oscular surface compact, ~50–170 µm (deep), heavily reinforced with collagen; choanocyte chambers large, oval or elongate; mesohyl heavily reinforced with collagen; collagen surrounds fibres as sheath.

Choanosomal_Skeleton	simple reticulation of fibres; fibres uniform, anastomosing, ~500–1500 µm (d), in net-like arrangement; primary fibres zig-zag in vertical plane, through plane of lamella, meshes diamond-shaped, ~10–15 × 1–5 mm wide; secondary fibres short, fine, ~200–500 µm (d), oriented diagonally across fan, only connect between few adjacent fibres, patchy in occurrence; dendritic spikes extend outwards from primary fibres, evident in lateral view, more pronounced on poral face; fibre pith occupies <75 % of fibre diameter, bark laminae charged with spongocytes in concentric array, often multiple pith elements surrounded by common bark layer; skeleton rigidity varies with robustness of fibres and degree of interconnection; also vary in degree of lateral ornamentation of fibres.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	Bergquist & Kelly-Borges, 1995
Mudmap_Editor	K Hall

Distribution

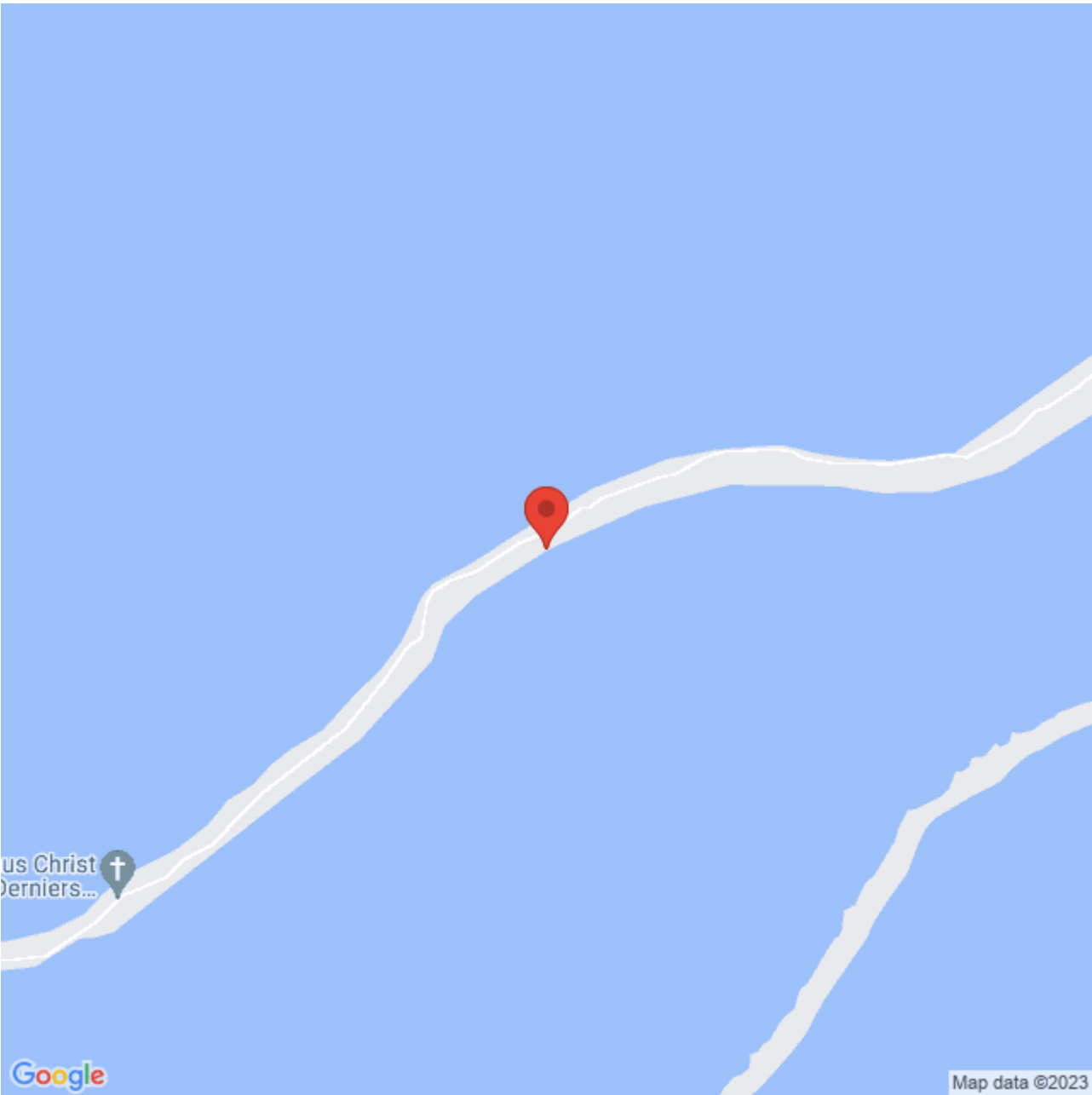
In French Polynesia: Tuamotu archipelago is.

Pacific Ocean: Ausrtalia, Solomon islands, Papua New Guinea

Ecology and habitat

Outer reef slope.

Bergquist & Kelly-Borges, 1995 (2014). QM2668 *Ianthella reticulata* Bergquist & Kelly-Borges, 1995. In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



Family: Pseudoceratinidae

***Pseudoceratina* sp. (OTU QM2081) (OTU QM2081)**

Order
Verongiida

Family
Pseudoceratinidae



External characters

cylindrical tubes, "hot dog sponge".

Colour

pink-orange in life; dark purple in ethanol.

Skeletal Characters

Oscules	on upper surface; terminal on raised "bumps".
Texture	very firm, tough, rubbery, difficult to tear.
Surface_Ornamentation	conule-like bumps (tubercules) irregularly over surface, smooth, membranous, opaque.
Ectosomal_Skeleton	membranous, very densly pigmented, collagenous; some detritic inclusions evident throughout subectosome, especially at base; mesohyl collagen slightly granular, distinct from choanosome.
Choanosomal_Skeleton	fibres widely spaced fibres, dendritic, with pith, only occasionally branch; mesohyl quite dense, homogeneous, some detritus incorporated.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	K Hall

Distribution

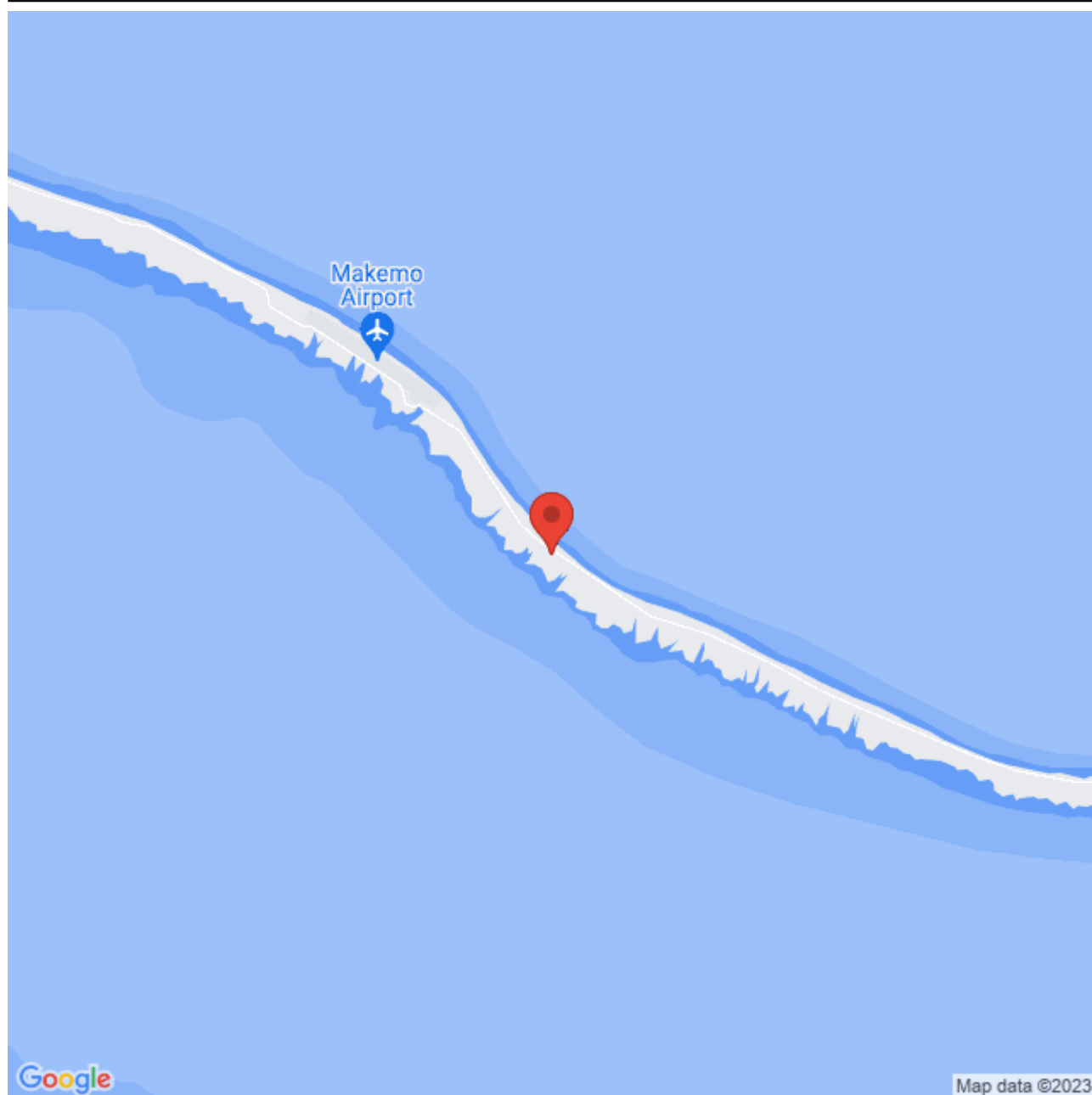
In French Polynesia: Tuamotu archipelago is.

Pacific Ocean: Fiji.

Ecology and habitat

In the lagoon, on pinnacles. Outer rim of the pass.

QM2081 *Pseudoceratina* sp. (OTU QM2081) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps: an online community for taxonomy and identification of sponges*. (Available at <http://www.spongemaps.org>).



***Pseudoceratina* sp. (OTU QM4755) (OTU QM4755)**

Order
Verongiida

Family
Pseudoceratinidae



External characters

very thinly encrusting on coral and/or rocky substrate.

Colour

white to red-orange in life; exterior deep maroon in ethanol.

Skeletal Characters

Oscules	few, sparse, between low conules, irregular, 2–7 mm (d).
Texture	smooth, soft, tears, compressible, not resilient.
Surface_Ornamentation	rugose, loosely conulose, shiny between conules, glabrous; conules ~1 mm (h), spaced ~4–12 mm apart.
Ectosomal_Skeleton	not conspicuously distinguished from choanosome; conules raised by large fibres which protrude though ectosome.
Choanosomal_Skeleton	fibrous; fibres sparse, very large, laminated, irregular in width along length, 70–300 μ m, very lightly cored with occasional foreign spicule; mesohyl collagenous, incorporates very little detritus (occasional algae, rare sand grain or spicule), heavily pigmented; pigment in granules.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Society and Austral archipelago is.

Ecology and habitat

Outer and inner reef slope. Inner rim of the pass.

QM4755 *Pseudoceratina* sp. (OTU QM4755) . In: Hall, K.A. & Hooper, J.N.A. (2014)
SpongeMaps: an online community for taxonomy and identification of sponges. (Available at
<http://www.spongemaps.org>).



***Pseudoceratina* sp. (OTU QM4756) (OTU QM4756)**

Order
Verongiida

Family
Pseudoceratinidae

External characters

digitiform, ramose, upright growth form with basal attachment.

Colour

pale cream to purple in life; exterior brown in ethanol.

Skeletal Characters

Oscules	few, sparse, between conules, ovoid, 1–2 mm (d).
Texture	light, rubbery, tough, tearable, compressible, easily resilient.
Surface_Ornamentation	highly conulose, fibres protrude beyond conules, shiny and smooth between conules, some cobweb patterns; conules 2–3 mm (h), spaced 8–10 mm apart.
Ectosomal_Skeleton	not conspicuously distinguished from choanosome; conules raised by large fibres which protrude though ectosome.
Choanosomal_Skeleton	fibrous; fibres very large, laminated, no bark, pith clear, irregular in width along single fibre, 60–350 µm (d), sparse, clear with occasional sand debris inclusions; pigment in granules throughout.
Megascleres	nil.
Microscleres	nil.
Mudmap_Author	K Hall
Mudmap_Editor	Kathryn Hall

Distribution

In French Polynesia: Society archipelago is.

Ecology and habitat

Outer reef slope.

K Hall (2014). QM4756 *Pseudoceratina* sp. (OTU QM4756) . In: Hall, K.A. & Hooper, J.N.A. (2014) *SpongeMaps*: an online community for taxonomy and identification of sponges. (Available at <http://www.spongemaps.org>).



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Payri Claude, Petek Sylvain (2011) **Pakaihi i te Moana cruise** (Leg 2), RV Braveheart, (*Marquesas archipelago is.*) [@](#)

Planes Serge, Debitus Cécile, Petek Sylvain (2010) **Coralspot expedition**, RV Claymore II, (*Gambier archipelago is.*)

Salvat B., Petek S., Folcher E., Debitus C., Benzoni F., Pichon M., Bouchet P., Tröndlé J., Poupin J., Paulay G., Michonneau F., Starmer J., Evans N. **Invertébrés benthiques des Marquises**. In Galzin R., Duron S.-D. & Meyer J.-Y. (eds), **Biodiversité terrestre et marine des îles Marquises, Polynésie française**. Société française d'Ichtyologie, Paris, 2016, pp 221-258. [@](#)

Glossary

Glossary text

Photo gallery



Acanthodendrilla sp
– (4923) – Tuamotu
– Rangiroa



Amphimedon sp –
2641 – Tuamotu –
Hao



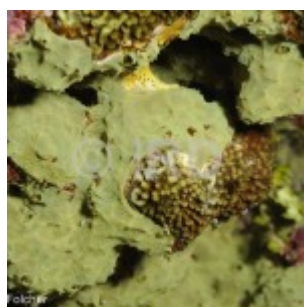
Amorphinopsis sp –
(4757) – Tuamotu –
Rangiroa



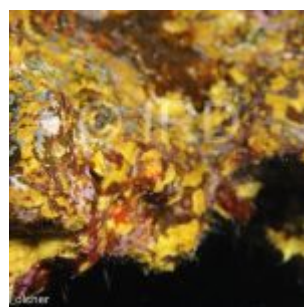
Antho (antho) sp –
(4699) – Marquises
– Hiva Oa



Astrosclera
willeyana – (656) –
Tuamotu – Takaroa



Aplysilla sp – (2034)
– Société – Mehetia



Aplysinella sp –
(1719) – Societe –
Mehetia



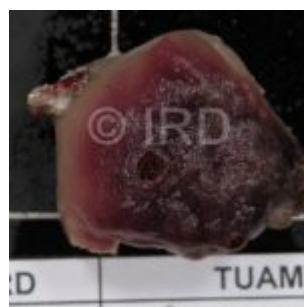
Aplysinella rhax –
(2027) – Marquises
– Tahuata



Aplysinopsis sp-
(1441) – Tuamotu –
Rangiroa



Aplysinopsis sp –
(4400) – Gambier



Axinyssa aculeata –
Tuamotu – Raroia



Axinyssa sp –
(2632) – Tuamotu –
Rangiroa



Axinyssa sp –
(4849) – Tuamotu –
Hao



Axinyssa sp –
(4849) – Tuamotu –
Hao



Batzella sp – (2734)
– Marquises –
Tahuata



Batzella sp – (2753)
– Marquises – Ua
Pou



Batzella sp – (4713)
– Marquises –
Tahuata



Batzella sp – (4713)
– Marquises –
Tahuata



Bubaris sp – (4855)
– Tuamotu –
Marokau



Cacospongia sp –
(2110) – Tuamotu –
Rangiroa



Cacospongia sp –
(2334) – Australes –
Raivavae



Cacospongia sp –
(2334) – Australes –
Raivavae



Callyspongia sp –
(2708) – Tuamotu –
Toau



Chalinula sp – (149)
– Tuamotu –
Fakarava



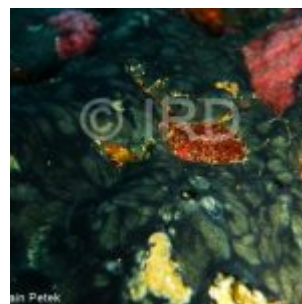
Chalinula sp –
(4223) – Australes –
Marotiri



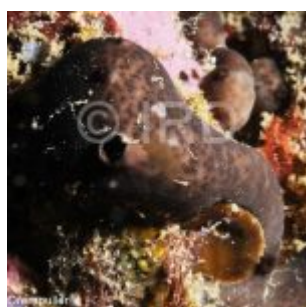
Chelonaplysilla
delicata – Tuamotu
– Hao



Chondrilla sp –
(4361) – Société –
Tahiti



Chondropsis sp –
(4861) – Marquises
– Tahuata



Chondrosia
corticata – (2122) –
Marquises – Nuku
Hiva



Chondrosia sp –
(2212) – Societe –
Tahiti



Cinachyrella sp –
(2119) – Societe –
Raitea



Cinachyrella sp –
(4680) – Marquises
– Nuku Hiva



Cinachyrella sp –
(4827) – Societe –
Tahiti



Cinachyrella sp –
(4880) – Societe –
Tahiti



Coelosphaera
(coelosphaera) sp –
(4683) – Marquises
– Nuku Hiva



Coscinoderma sp –
(4176) – Societe –
Raitea



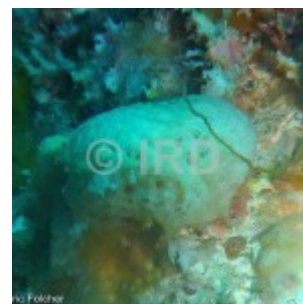
Craniella
abracadabra –
(3744) – Marquises
– Tahuata



Cribrochalina sp –
(4867) – Societe –
Tahiti



Dactylia sp – (4863)
– Australes –
Raivavae



Dactylospongia sp –
(4908) – Australes –
Rapa



Dactylospongia sp –
(4908) – Australes –
Rapa



Dactylospongia sp –
(4856) – Tuamotu –
Fakarava



Dactylospongia sp –
(4856) – Tuamotu –
Fakarava



Dactylospongia
elegans – Tuamotu
– Fakarava



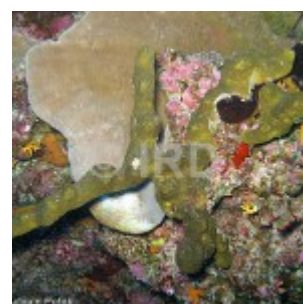
Dactylospongia
elegans –
Marquises – Nuku
Hiva



Dactylospongia
metachromia –
Tuamotu – Tetiaroa



Dactylospongia
metachromia –
Tuamotu – Tetiaroa



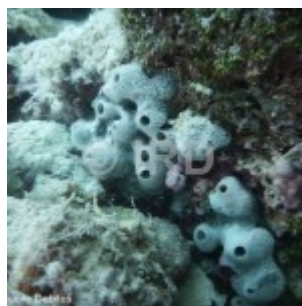
Dactylospongia
metachromia –
Tuamotu –
Rangiroa



Darwinella sp –
(4848) – Tuamotu –
Anuanuraro



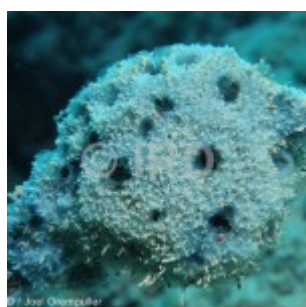
Dendrilla sp –
(4907) – Tuamotu –
Rangiroa



Dysidea sp (103) –
Australes – Tubuai



Dysidea sp (103) –
Australes – Tubuai



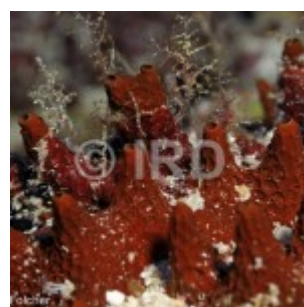
Dysidea sp (4759) –
Societe – Raiatea



Dysidea arenaria –
Societe – Bora Bora



Dysidea arenaria –
Marquises –
Hatutaa



Dysidea sp (2669) –
Tuamotu –
Rangiroa



Dysidea sp (2975) –
Tuamotu – Hao



Dysidea sp (4866) –
Societe – Tahiti



Dysidea sp – (4847)
– Gambier



Dysidea sp (4759) –
Australes – Rapa



Dysidea sp (4759) –
Australes – Rapa



Dysidea sp (2328) –
Societe – Tahiti



Dysidea sp (2102) –
Marquises – Nuku
Hiva



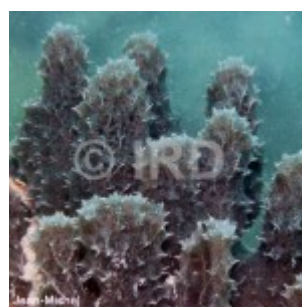
Dysidea sp (1584) –
Societe – Tahiti



Dysidea frondosa –
Societe – Tahaa



Dysidea sp (1214) –
Societe – Raiatea



Dysidea sp (229) –
Australes – Rapa



Dysidea sp (229) –
Société – Bora Bora



Dysidea sp (229) –
Marquises – Fatu
Hiva



Dysidea sp (229) –
Tuamotu – Tikehau



Echinodictyum
asperum – (0133) –
Gambier



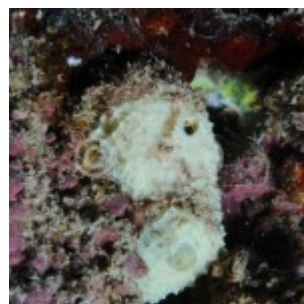
Echinodictyum sp –
(4862) – Australes –
Rapa



*Euryspongia
delicatula* –
Tuamotu – Hao



Euryspongia sp
(4409) – Societe –
Huahine



Euryspongia sp
(4409) – Societe –
Raiatea



Fascaplysinopsis sp
(4906) – Tuamotu –
Rangiroa



Fascaplysinopsis sp
(4906) – Tuamotu –
Rangiroa



Fasciospongia sp
(4703) – Marquises
– Nuku Hiva



Gastrophanella sp –
Societe – Tahiti



Geodia sp (4901) –
Marquises – Fatu
Huku



Halichondria sp –
(4902) – Australes –
Rapa



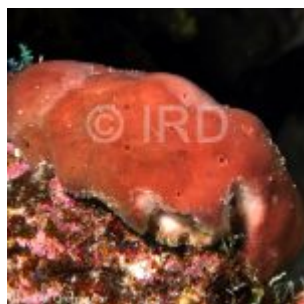
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Tubuai



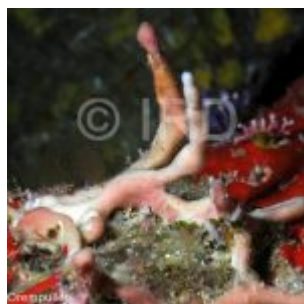
Halichondria sp –
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Maria



Halichondria sp –
(4905) – Societe –
Tahiti



Haliclona sp –
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Huahine



Haliclona sp –
(4386) – Societe –
Bora Bora



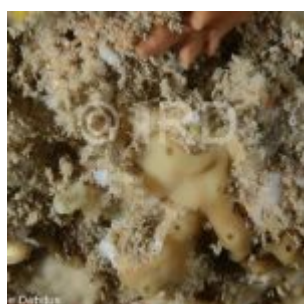
Haliclona sp –
(4715) – Tuamotu –
Rangiroa



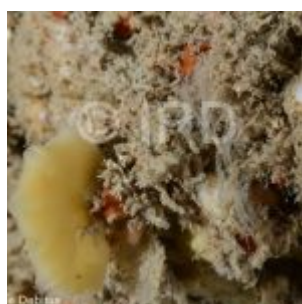
Haliclona sp –
(4857) – Tuamotu –
Fakarava



Haliclona sp –
(4858) – Tuamotu –
Raroia



Haliclona sp –
(4871) – Societe –
Tahiti



Haliclona sp –
(4872) – Societe –
Tahiti



Haliclona sp –
(4873) – Societe –
Tahiti



Haliclona
(Haliclona) sp
-(4468) – Tuamotu
– Fakarava



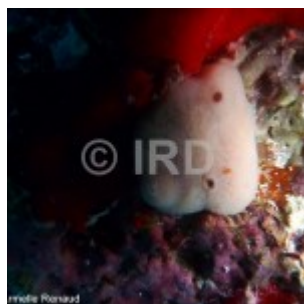
Haliclona
(Haliclona) sp –
(0854) – Tuamotu –
Hao



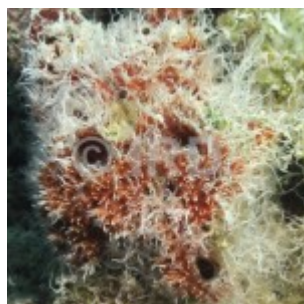
Haliclona-reniera sp
– (2556) – Tuamotu
– Tikehau



Haliclona-reniera sp
– (2556) – Tuamotu
– Tikehau



Halisarca laxus –
Tuamotu – Toau



Halisarca sp (1231)
– Tuamotu – Hao



Hymeniacidon sp –
(4898) – Tuamotu –
Rangiroa



Hymerhabdia sp
(4743) – Marquises
– Nuku Hiva



Hymerhabdia sp
(4743) – Marquises
– Eiao



Hyrtios sp – (778) –
Tuamotu –
Fakarava



Hyrtios sp – (778) –
Tuamotu –
Fakarava



Hyrtios sp (3466) –
Societe – Tahiti



Hyrtios sp (3466) –
Societe – Tahiti



Hyrtios sp (4761) –
Societe – Scilly



Hyrtios sp (4761) –
Societe – Raiatea



Hyrtios sp (778) –
Tuamotu –
Fakarava



Hyrtilis sp (778) –
Tuamotu –
Fakarava



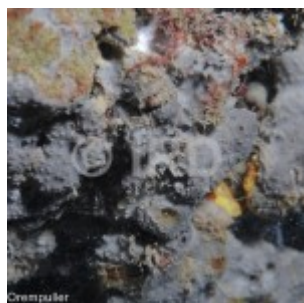
Hyrtilis sp (2864) –
Societe – Tahiti



Lanthella reticulata –
(2668) – Tuamotu –
Takaroa



Lamellodysidea sp
(2538) – Societe –
Raiatea



Lamellodysidea
(2538) – Societe –
Tahiti



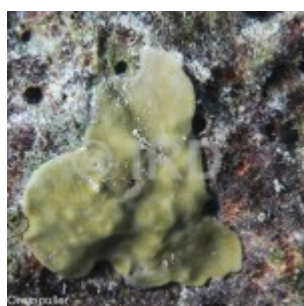
Lamellodysidea
(2538) – Societe –
Tahiti



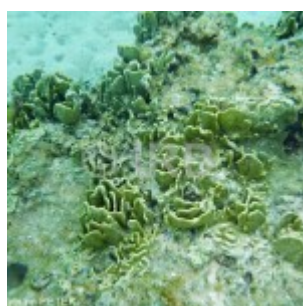
Lamellodysidea sp
(4895) – Societe –
Tahiti



Lamellodysidea sp
(4896) – Tuamotu –
Tikehau



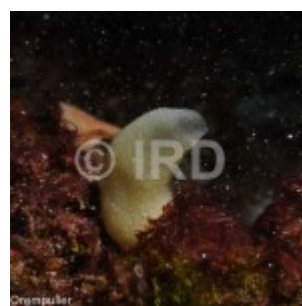
Lamellodysidea
herbacea – Societe
– Bora Bora



Lamellodysidea
herbacea – Societe
– Moorea



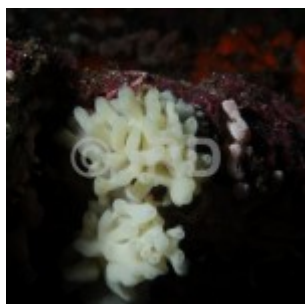
Leiosella sp (4897)
– Societe – Tahiti



Leucaltis sp –
Marquises –
Tahuata



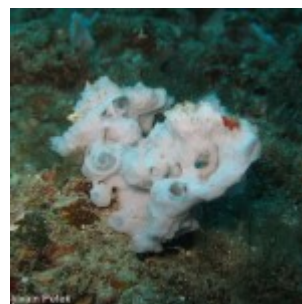
Leucandra sp –
(4854) – Australes –
Tubuai



Leucascus sp –
Marqueses – Nuku
Hiva



Leucascus sp –
Marqueses – Ua
Huka



Leucetta
microraphis –
(1065) – Societe –
Tahiti



Leucetta
chagosensis –
Tuamotu –
Rangiroa



Luffariella sp (4894)
– Australes –
Rurutu



Luffariella sp (1227)
– Tuamotu –
Fakarava



Microscleroderma
sp 1- Marqueses –
Nuku Hiva



Microscleroderma
sp 2 – Societe –
Tahiti



Microtylostylifer sp
– (0785) –
Marqueses – Nuku
Hiva



Microxina sp –
(4860) – Tuamotu –
Fakarava



Monanchora sp –
(4696) – Marqueses
– Tahuata



Mycale (mycale) grandis – (3008) –
Marquises – Hiva
Oa



Mycale (zygomycale) –
(2635) – Marquises
– Nuku Hiva



Neofibularia hartmani – (0928) –
Australes – Rapa



Neopetrosia exigua – (0002) –
Marquises – Fatu
Hiva



Petrosia (petrosia)
sp – (4710) –
Marquises – Nuku
Hiva



Petrosia (strongylophora) sp
– (4893) – Societe –
Tahiti



Phakellia carduus –
(0107) – Tuamotu –
Hao



Phakellia sp –
(4859) – Tuamotu –
Takarua



Phakellia sp –
(4859) – Tuamotu –
Takarua



Phoriospongia sp –
(1599) – Marquises
– Nuku Hiva



Phoriospongia sp –
(3715) – Marquises
– Ua Pou



Phoriospongia sp –
(3730) – Marquises
– Fatu Hiva



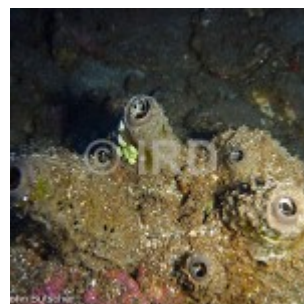
Phycopsis sp –
(1640) – Tuamotu –
Rangiroa



Plakinastrella sp –
(4892) – Societe –
Tahiti



Psammocinia sp
(704) – Societe –
Tahiti



Psammocinia sp
(4758) – Societe –
Tahiti



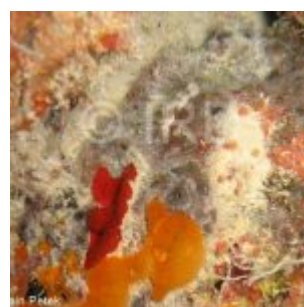
Psammocinia sp
(4758) – Societe –
Raiatea



Psammoclema sp –
(0736) – Marquises
– Ua Pou



Psammoclema sp –
(4870) – Societe –
Tahiti



Psammoclema sp –
(4879) – Tuamotu –
Fakarava



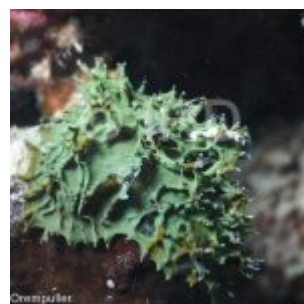
Psammoclema sp –
(4879) – Tuamotu –
Fakarava



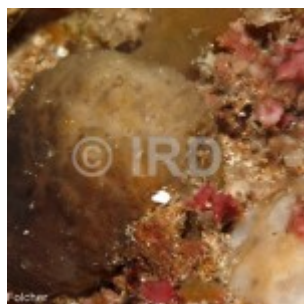
Pseudoceratina sp
– (2081) – Tuamotu
– Raroia



Pseudoceratina sp
– (4755) – Societe –
Bora Bora



Pseudoceratina sp
– (4755) – Societe –
Bora Bora



Rhopaloeides
odorabile –
Australes – Rapa



Rhopaloeides sp
(2883) – Societe –
Tahiti



Rhabdastrella sp
(4875) – Société –
Tahiti



Rhabdastrella sp
(4891) – Australes –
Rapa



Rhaphoxya sp
(4868) – Societe –
Tahiti



Rhaphoxya sp
(4877) – Societe –
Tahiti



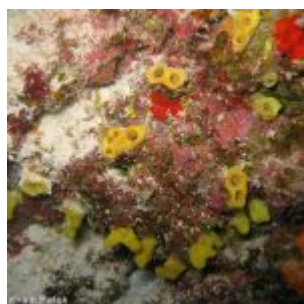
Semitaspongia sp
(4890) – Marquises
– Hiva Oa



Siphonochalina sp –
(2754) – Tuamotu –
Hao



Siphonodictyon sp –
(331) – Marquises –
Ua Pou



Siphonodictyon sp –
(4700) – Tuamotu –
Tikehau



Siphonodictyon sp –
(4700) – Tuamotu –
Tikehau



Siphonodictyon sp –
(4700) – Societe –
Raiatea



Smenospongia sp
(4760) – Societe –
Raiatea



Spongia (*spongia*)
sp (4763) – Societe
– Tahaa



Spongia sp (1983) –
Tuamotu – Makemo



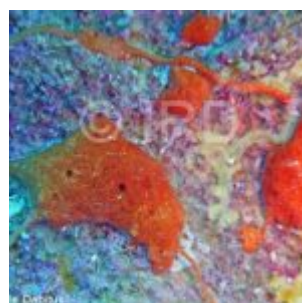
Strongylacidon sp –
(2535) – Tuamotu –
Raroia



Stylissa
flabelliformis –
Societe – Tahiti



Stylissa massa –
Marquises – Nuku
Hiva



Stylissa sp – (4884)
– Australes –
Rurutu



Suberites sp. (3294)
– Tuamotu –
Fakarava



Suberea
ianthelliformis –
(0012) – Marquises
– Nuku Hiva



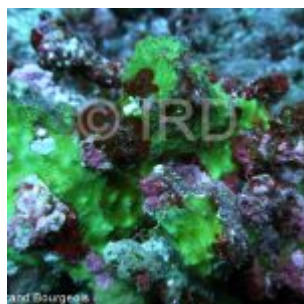
Suberea sp –
(2121) – Tuamotu –
Tikehau



Suberea sp –
(2121) – Societe –
Tahaa



Suberea sp –
(2093) – Marquises
– Nuku Hiva



Suberea sp –
(2872) – Societe –
Mehetia



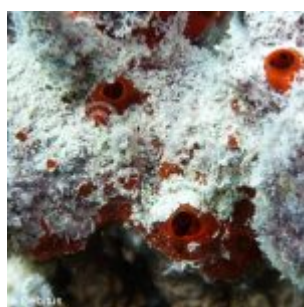
Suberea sp -(4728)
– Tuamotu –
Fakarava



Suberea sp –
(4883) – Societe –
Tahiti



Suberites sp –
(4882) – Marqueses
– Fatu Hiva



Tedania sp – (0985)
– Gambiers



Tedania sp – (4874)
– Societe – Tahiti



Tedania sp – (4876)
– Societe – Tahiti



Thorecta sp (2075)
– Tuamotu –
Rangiroa



Vaceletia crypta –
Tuamotu – Raroia



Vaceletia crypta –
Tuamotu – Raroia



Xestospongia sp –
(4688) – Marqueses
– Nuku Hiva



Xestospongia sp –
(4688) – Tuamotu –
Rangiroa



Monanchora sp

Research organisations



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