Lobate sponge

Phylum Porifera
Class Demospongiae
Order Hadromerida
Family Suberitidae



Photo by J. Hoover

DESCRIPTION

Growth Form

Encrusting to massive, usually with large lobate or digitate projections.

Color

External color variable, usually red or red-orange, but also yellow, dark green, greenish purple, or turquoise; internal color always yellow-ochre.

Texture and Surface Features

Texture dense, flexible, rubbery, but easy to tear; like cheese. Surface generally smooth, some specimens with goose-bumps

Spicules

Straight sharply pointed tylostyles, large variation in size 300-700 μm , some smaller ones with irregularly shaped or lumpy heads; although ectosome consists of brushes of smaller tylostyles of nearly uniform size (300 μm), no distinct size classes are evident

tylostyles
Spicules of Suberites zeteki.

HABITAT

Common as fouling in harbors, especially those with some estuarine conditions, and in Kaneohe Bay, primarily on floating docks, dock pilings and mangrove roots, also on hulls of ships.

DISTRIBUTION

HAWAIIAN ISLANDS

Oahu – all leeward harbors and Kaneohe Bay **Kauai** – Nawiliwili Boat Harbor

NATIVE RANGE

Caribbean or west coast Panama

PRESENT DISTRIBUTION

Caribbean, Panama, Hawaiian Islands, Guam

MECHANISM OF INTRODUCTION

Unintentional introduction, most likely as fouling on ships' hull.

MPACT

Fouling organism. Ecological impact unstudied, some competition for space with native species likely.

ECOLOGY

Reproduction

Like all sponges, *S. zeteki* is capable of asexual reproduction by fragmentation of the adult. Details regarding sexual reproduction of this species are unknown. (See **Reproduction** of *Sigmadocia caerulea* for general description of sponge reproduction.)

Feeding

Sponges are filter feeders, continuously circulating water through their bodies. Microscopic food particles are removed from water by specialized collar cells. Digestion is intracellular.

REMARKS

De Laubenfels (1950) thought *S. zeteki* to be the most abundant in Hawaii, especially in shallow-water protected environments such as boat harbors and embayments. Recent observations of sponge populations in these habitats around Oahu, suggest that the more recently introduced sponge, *Mycale armata*, not present during de Laubenfels' time, is now more abundant and widespread.

De Laubenfels (1950) considered the Hawaiian specimens to be identical to *Laxosuberites zeteki* which he described in 1936, found at both ends of the Panama Canal. We have examined the holotype of *L. zeteki* and concur with de Laubenfels' determination.

Mycale cecilia de Laubenfels 1936, a common West Indian species, is also very common in shallow water locations such as Honolulu and Pearl Harbors, leading him to speculate that: "The 2 Panamanian forms conceivably may have been bought to Hawaii on ship bottoms, one being abundant on those [ships] drydocked at Pearl Harbor, or conversely, they may have been taken from Hawaii to Panama."

REFERENCES

De Laubenfels, M.W. 1950. The sponges of Kaneohe Bay, Oahu. *Pac. Sci.* 4(1): 3-36.