

Serpulid worm

Phylum Annelida
Class Polychaeta
Family Serpulidae



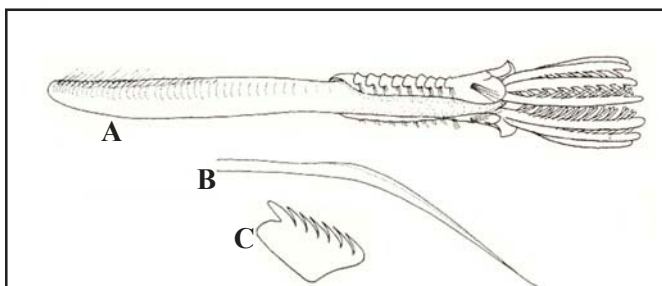
Photo by R. DeFelice

DESCRIPTION

This small gregarious species is characterized by having very slender, white tubes, 15 mm long and 0.5 mm wide. Aggregations of this species can form thick anastomosing bundles of tubes. The branchial crown is composed of 8 radioles, 4 on each side. Species in this genus lack an operculum. There are 7 to 9 thoracic segments; fin and blade setae occur on the first setiger and simple wingless setae and sickle setae are present on the remaining setigers (from Bailey-Brock 1987).

HABITAT

Most common on hard substrates or overgrowing other fouling invertebrates in sheltered waters, especially harbors and embayments, but can be found in a variety of shallow and deep reef habitats.



Salmacina dysteri.
(A) Entire worm. (B) Collar setae. (C) Thoracic uncinus. (Day 1967)

DISTRIBUTION

HAWAIIAN ISLANDS

Throughout the main islands, especially in harbors.

NATIVE RANGE

Unknown

PRESENT DISTRIBUTION

Cosmopolitan in warm seas

MECHANISM OF INTRODUCTION

Unintentional, most likely as fouling on ships hulls

IMPACT

Fouling organism. Ecological impact unstudied, but assumed to be minimal.

ECOLOGY

Reproduction

These worms may reproduce asexually by transverse division. They are also hermaphroditic, and fertilization and subsequent larval development are external.

Feeding

Serpulids are suspension feeders. Cilia on the tentacles create a current that draws water and food particles to the worm. The particles are captured, sorted, and carried with mucus along a series of tracts and grooves to the mouth.

REMARKS

Although nomenclatural problems surround this now-global species, we tentatively retain this name. This signature fouling harbor species is also reported in Hawaiian waters at depths to 200-600 meters and as being found across a wide variety of habitat facies in the Islands, for example, rocky intertidal, reef flats on algae, anchialine lava ponds, and reef slopes to depth (Bailey-Brock, 1976). While it may thus be that more than one species is involved, this range of habitats tentatively places this tubeworm in the cryptogenic category.

Edmondson and Ingram (1939) found it in fouling beginning in 1935 in Kaneohe Bay. Long (1974) reported it on “offshore” and Pearl Harbor fouling panels (1968), and Hartman (1966) noted that it occurred as “massed tubes fouling harbor installations during summer and fall months at Pearl Harbor and Kaneohe Bay”. It’s continued presence has been widely reported throughout the main islands by numerous authors.

REFERENCES

- Bailey-Brock, J.H. 1976. Habitats of tubicolous polychaetes from the Hawaiian Islands. *Pacific Science*. 30:69-81.
- Edmondson, C.H. and Ingram, W.H. Fouling organisms in Hawaii. *B.P. Bishop Mus. Occ. Pap.* 14(14):251-300.
- Hartman, O. 1966. Polychaetous annelids of the Hawaiian Islands. *Occ. Pap. B.P. Bishop Mus.* 33(11): 163-252.
- Long, E.R. 1974. Marine fouling studies off Oahu, Hawaii. *Veliger*. 17: 23-39.