Laurencia nidifica, or limu mane‘one‘o, is an indigenous Hawaiian species which is in direct competition with the more successful invasive Acanthophora spicifera.

**Identifying Features**

**Description**

Firm, erect plant, to 10 cm tall, arising singly or in tufts from an entangled base. Terete axes are relatively thin, 0.5 - 1 mm in diameter, branching rarely more than 3 orders with the main divisions subdichotomous. Next orders are varied: alternate, opposite, or occasionally whorled. Branchlets are short, with blunt, indented tips.

Because of the high variation in color, branching pattern and texture, it is not simple to identify Laurencia species in the field.

**Color**

Among the most colorful in the field: rose, pink, dark brown. Highly variable, from straw colored in sunny locations to dark red in shaded habitats or along one plant from upper to lower portions.

**Habitat**

Laurencia nidifica is often found on reef flats and in lower intertidal habitats, 1 to 3 meters deep, attached to eroded coral or basalt rocks. Often found with Acanthophora spicifera, with which L. nidifica may even be entangled.

Often found with epiphytic Hypnea musciformis or H. cervicornis attached to the upper branches.

**Structural**

Cortical cells subquadrate, walls not projecting; lenticular thickenings occasional, not in every section. Tetrasporangia of parallel type.
Laurencia nidifica

**Distribution**

HAWAI‘I
Laysan, O‘ahu, Kaua‘i, Moloka‘i, Lana‘i.

WORLDWIDE
South Pacific and Indian Ocean.

**Mechanism of Introduction**
Indigenous to Hawai‘i.

**Ecology/Impact**

Laurencia nidifica is a common shallow subtidal red alga that is often found in communities with Acanthophora spicifera, Hypnea musciformis and H. cervicornis. L. nidifica and A. spicifera are often found attached to one another or even entangled. L. nidifica was recorded in Hawaii as early as 1863, leading to the belief that it is an indigenous species on Hawaiian reefs. The near proximity and greater biomass of the invasive, A. spicifera, to L. nidifica suggests that the invasive is competing with the indigenous L. nidifica for substrate and forcing it seaward into deeper waters. In a study of the distribution of these species, L. nidifica was the only species that increased in biomass when A. spicifera decreased in biomass.

Hypnea cervicornis was often found epiphytically attached to the upper branches of L. nidifica until the introduction of another invasive, H. musciformis. Since then, both Hypnea species are found attached to L. nidifica, with the more competitively successful H. musciformis more prevalent. The introduction of the two invasives, A. spicifera and H. musciformis, has changed the community structure of the shallow reef flat from L. nidifica with the epiphytic H. cervicornis attached, to the more aggressive A. spicifera and the epiphytic H. musciformis.

This species is used as a condiment by Hawaiians because of its peppery taste.

**References**


**Web Pages**

