# **Marine Fishes**



# Sex Changing Reef Fishes Serranidae

Liopropoma aurora Pseudanthias thompsoni Pseudogramma polyacanthum hawaiiensis



# Labridae

Ammolabrus dicrus
Anampses chrysocephalus
Bodianus sp.
Coris flavovittata
Coris venusta
Cymolutes lecluse
Iniistius umbrilatus

## **SPECIES STATUS:**

IUCN Red List - Not considered Endemic

SPECIES INFORMATION: These fishes belong to the sea bass and wrasse families. These species are all carnivorous; Hawaiian anthias (*Pseudanthias*) more on zooplankton than the others, which feed in sand or on animals in the reef matrix. Most are less than 30 centimeters (one foot) long. It is likely that all are protogynous hermaphrodites. Many have males with haremic territories. The species common names and Hawaiian names are: sunset basslet (*Liopropoma*), Hawaiian anthias (*Pseudanthias*), palespotted podge (*Pseudogramma*), sand wrasse (*Ammolabrus*), psychedelic wrasse (*Anampses chrysocephalus*), Hawaiian pigfish (*Bodianus*), yellowstripe coris (*Coris flavovittata*, hilu), elegant coris (*Coris venusta*), Hawaiian knifefish (*Cymolutes*), and blackside razorfish (*Iniistius*, lae-nihi).

**DISTRIBUTION:** Hawaiian anthias have been reported from Moloka'i throughout the rest of the chain to the northwest. Palespotted podge has been found from the island of Hawai'i to O'ahu. The sand wrasse has only been found off O'ahu. Lae-nihi have only been found from the island of Hawai'i to Necker Island. All the other species occur throughout the Hawaiian Islands.

**ABUNDANCE:** The shallow water species are surveyed for in surveys of coral reef fishes in the Main and Northwestern Hawaiian Islands, both by the National Oceanic and Atmospheric Administration and the Division of Aquatic Resources and data are available online.

LOCATION AND CONDITION OF KEY HABITAT: All species except the sunset basslet and the Hawaiian pigfish species can be found in shallow water depths. Sunset basslets occur in deeper water, usually over 60 meters (200 feet) but sometimes to SCUBA diving depths. The undescribed species of Hawaiian Pigfish has only been found in depths greater than 140 meters (450 feet). Psychedelic wrasse terminal phase males are usually only found in depths greater than 15 meters (50 feet). Hawaiian anthias can often be found around reef ledges and drop offs while palespotted podge are more common on coral and rubble substrates. Sand wrasses, Hawaiian knifefish, and blackside razorfish spend most of their time over sandy substrates and the last two can dive into the sand to avoid predators. The rest are found throughout coral reef habitats.

#### THREATS:

These species are almost all prized by aquarists except for palespotted podge, sand wrasses, and Hawaiian knifefish. Many of these species have different color phases for each sex and also juveniles, and in particular the juvenile color phases are often targeted by collectors.

**CONSERVATION ACTIONS:** The goals of conservation actions are to not only protect current populations, but to also establish further populations to reduce the risk of extinction. Commercial licenses are required for aquarium collectors. In addition to common statewide and island conservation actions, specific actions include:

• Maintain healthy populations with appropriate fishing regulations and education.

### **MONITORING:**

Continue to survey for populations and distribution in known and likely habitats.

# **RESEARCH PRIORITIES:**

- Improve understanding of factors affecting the species population size;
- Support aquacultural research to develop captive breeding for species used in the aquarium trade.

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