Marine Fishes

Hawaiian sea moth
Eurypegasus papilio

Ball's pipefish
Cosmocampus balli

Redstripe pipefish
Doryrhampus baldwini

Edmondson's pipefish
Halicampus edmondsoni

Doryhampus baldwini
Courtesy Keoki Stender

Fisher's seahorse
Hippocampus fisheri

Spiny seahorse
Hippocampus histrix

Yellow seahorse
Hippocampus kuda

SPECIES STATUS:
IUCN Red List – Not considered except:
Hippocampus fisheri and *H. histrix*, and *Eurypegasus* listed as Data Deficient
H. kuda listed as vulnerable
All Endemic except *Hippocampus histrix* and *H. kuda*

SPECIES INFORMATION: These species all share a body structure made of bony rings. The pipefishes and seahorses have sex-role reversal where the males accept and guard eggs in internal pouches or on their skin until the young hatch. This takes from ten to 50 days. They are predators that feed mostly on small crustaceans. The Hawaiian sea moth is a deeper water species. Redstripe pipefish often occur in small groups of mixed age. They have also been

observed cleaning other fishes. Fisher's seahorse is apparently pelagic, attaching to floating algae. All species are less than 30 centimeters (one foot) in length and mostly half of that.

DISTRIBUTION: Hawaiian sea moths and Edmondson's pipefish are found statewide. Ball's pipefish has been found from Oʻahu to Kauaʻi. The redstripe pipefish has only been found from the island of Hawaiʻi to Oʻahu. Fisher's seahorse is found from Maui to the island of Hawaiʻi but may be more widespread. The spiny seahorse is only known from a specimen from Maui. The Yellow seahorse is found in the main islands and up to Necker Island.

ABUNDANCE: These species (except the deep Hawaiian sea moths) are looked 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. A recent survey in the main islands found that seahorses and pipefishes were rare.

LOCATION AND CONDITION OF KEY HABITAT: Seahorses use plants to anchor themselves by their tails. Pipefishes often use the area under ledges. They all occur in moderately shallow water, except the sea moth which occurs in water over 60 meters (200 feet) deep, often in algal beds. Juvenile Hawaiian sea moths can be found in shallow water. Edmondson's pipefish can often be found in tidepools. The Yellow seahorse can be found in brackish waters.

THREATS:

- These species are prized by aquarists, and seahorses are used in some Asian cultures for medicinal and other purposes. Aquaculture research collection may also be a threat.

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. Seahorses are listed in CITES Appendix II and pipefishes are being considered for such protection. Commercial licenses are required for aquarium collectors. In addition to common state-wide 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.

References:

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