

# SEAHORSES & PIPEFISH

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## OVERALL TARGETS

Short term (5 years): To control the threats to Bermuda's seahorse and pipefish populations so existing population numbers are sustained.

Long term (30 years): To increase population numbers of all seahorses and pipefish such that they are no longer rare.

## SPECIES PROFILES

**Species:** All of the following have been recorded from Bermuda's waters:

Longsnout seahorse, *Hippocampus reidi*  
Lined seahorse, *Hippocampus erectus*  
Dwarf seahorse, *Hippocampus zostera*  
Seahorse pipefish, *Acentronuria dendritica*  
Sargassum pipefish, *Syngnathus pelagicus*  
Dusky pipefish, *Syngnathus floridae*  
Northern pipefish, *Syngnathus fuscus*  
Shortfin pipefish, *Cosmocampus elucens*  
Crested pipefish, *C. brachycephalus*  
Pugnose pipefish, *Bryx dunkeri*  
Banded pipefish, *Micrognathus orinitus*

**Global status:** All CITES Red Listed and considered vulnerable.

**Global distribution:** Bermuda's species are found in the Americas and throughout the Caribbean.

**Status in Bermuda:** Native and rare.

**Distribution in Bermuda:** Patchy distribution. Favours inshore waters, but can also be found offshore.

**Conservation importance:** Flagship species for seagrass habitat protection.

**Habitat:** Seagrass beds of inshore bays, around pylons and concrete docks, floating in Sargassum weed rafts offshore, and on mooring lines.

**Threats:** Collection for ornamental display in private aquariums, handling in the wild by curious people, habitat loss, small fragmented populations.

## BACKGROUND INFORMATION ON SPECIES

Not much is known about these species. Anecdotal evidence suggests that seahorses spend a lot of their time hunting for small crustaceans and invertebrates. They are known to change colour, and are masters of disguise - often hiding amongst seaweeds. They propel themselves using their small fins. Seahorses have a prehensile tail that is used to grab hold of anything for support. The dwarf seahorse has not been sighted in Bermuda since 1905.

### Life History

Both have breeding seasons that can last as long as 8 months. Males can be distinguished from females by the presence of a brood pouch on the abdomen. Females lay their eggs inside this pouch and the male will carry these fertilized eggs for up to three weeks before giving birth to as many as 1,500 live young. Seahorses and pipefish will only eat live food. They are an ambush predator, and swallow their prey whole. Because they have a small stomach this food passes through their gut quickly. Consequently, they spend much of the day searching for food. Their lifespan is unknown, as is the age when they reach sexual maturity. A few preliminary studies suggest that Bermuda's seahorse and pipefish populations are small and fragmented.

### Existing Measures for Conservation

These species are listed under CITES and cannot be traded internationally.

## Recommended Actions

*Legislation and Policy:* List seahorses and pipefish under the Protected Species Act (2003).

Activity	Priority	Action Taken
Implement a ban on the import, export and sale of all seahorses and pipefish (e.g. the sale of dried specimens in tourist shops).	A	

*Habitat Protection:* Promote the protection of seagrass beds, inshore bays, and mangroves.

Prohibit the use of drag nets in seagrass beds and inshore bays to stop incidental capture in non-selective fishing gear.	A	
Install environmentally friendly boat moorings within seagrass beds and inshore bays.	B	

*Direct Species Intervention:* If warranted, promote ex-situ captive breeding.

Perform a literature search and contact Project Seahorse regarding attempts of ex-situ management.	A	✓
Attempt a captive breeding programme locally.	B	
Investigate juvenile habitat and food requirements in the natural environment.	B	
Create a seahorse and pipefish exhibit for the public to heighten awareness of marine conservation and engage public support.	B	
Repatriate natural history specimens and data for research, including genetic information.	B	

*Research and Monitoring:* Assess current populations and determine why numbers are low.

Resurvey populations to establish a current baseline, identifying habitats, numbers, and species composition and structure.	A	
Examine more closely the ecology and behaviour of these species, both in captivity and in the wild.	B	

*Communications and Publicity:* Promote ongoing public awareness of the threats to the conservation of Bermuda's seahorses and pipefish.

Develop a media campaign to explain the threats to and responsible public behaviour towards seahorse and pipefish conservation.	A	
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*Plan Monitoring:* Develop and implement a monitoring plan to assess the success of the species action plan.

Provide an annual report to the Department of Conservation Services on the progress of the species action plan.	A	
Create a survey to assess the level of public awareness of threats to and responsible public behaviour	B	

**Principle contact:** Marine Conservation Officer (Department of Conservation Services)