

# Banggai Cardinalfish

(*Pterapogon kauderni*)

2007 IUCN Red List of Threatened Species™



Banggai cardinalfish (*Pterapogon kauderni*). © B. Jones & M. Shimlock / NHPA / Photoshot

## Key facts

- Entering the IUCN Red List for the first time, assessed as Endangered.
- Only found in the Banggai Archipelago, near Sulawesi, Indonesia.
- The total available area for this species is 34 km<sup>2</sup> distributed in 30 islands.
- Main cause of decline is fishery for the international aquarium fish trade.
- There has been an 89% reduction in population from the start of aquarium fishery in 1995-1996 to 2007.
- The present total population size is between 1.8 and 2.2 million individuals.
- Presently, an estimated minimum of 700,000 – 900,000 fish are extracted every year.

## Threats to the Banggai Cardinalfish

- The aquarium trade.
  - The Banggai Cardinalfish is highly prized and has been heavily exploited since its rediscovery in 1994.
  - Fish are collected in nets and held until fish buyers visit individual fishermen about three or four times a month. Currently there are three main collecting centres and about 100 fishermen involved.
  - Transportation to national exporters by boat takes between 18 and 48 hours and causes high mortality among the fish.
- Significant destruction of its habitat due to rampant dynamite fishing throughout its range.
- Recently-discovered diseases and algae blooms which are affecting extensive coral fields used as habitat.
- There are fewer and fewer areas with adequate habitat, which, combined with the unsustainable harvest for the international trade, will lead to the depletion of many more populations in the next few years if such collecting is not regulated.

## Quirks of the Banggai Cardinalfish

- The Banggai Cardinalfish has a unique combination of biological characteristics. It has no dispersal capacity, very long period of embryonic development, low fecundity, high early mortality and sedentary behaviour.
- It is the marine fish with the highest genetic structure ever recorded. Populations separated by only 5 km are as genetically distinct as different species.

## Conservation measures

- A breeding programme was developed at New Jersey Academy for Aquatic Sciences but the aquarium industry appears to have made little concerted effort to replace wild-caught fish with captive-bred fish.
- Banggai Cardinalfish can be reared through its entire life cycle in captivity. It is strongly recommended that efforts be developed to raise this species in captivity and in the field (in partnerships with local communities, preferably in Indonesia, to avoid removing livelihoods from the area).

**For more information and to arrange interviews please contact:**

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