

## CASE STUDY FOR BLACK CORAL FROM HAWAII

## **AUTHORS:**

Andrew Bruckner, Patricia De Angelis and Tony Montgomery

Currently, raw and worked black coral emanating from the United States is being harvested from Hawaii, where three species (*Antipathes grandis, A. dichotoma*, and *A. ulex*) are commercially harvested and only two of which, *A. dichotoma* and *A. grandis*, are currently reported to be exported from the United States.

Although the U.S. Fish and Wildlife Service-Division of Scientific Authority (DSA) does not strictly adhere to the IUCN checklist, many of the concepts, prioritizations, and analyses used in NDFs for exports of U.S. black coral are consistent with those described in the IUCN document. DSA uses a combination of peer-reviewed science, provincial management measures, dialogue with provincial authorities and experts, industry reporting, and CITES data to determine whether given exports will be detrimental to the survival of the species or if they will affect the role of the species in its ecosystem.

The relatively small scale of the United States black coral industry (five operators and two major processors located within one state exploiting a small number of beds) facilitates provincial management of the fishery and DSAs analysis of the impacts from harvest and export. In making non-detriment findings for given exports, DSA relies on five basic factors: a) licensing and reporting requirements; b) the science-based minimum size limit imposed and enforced by the State of Hawaii; c) estimates of maximum sustainable yield (MSY) from the exploited beds; d) industry information on yields, material stockpiles, and productivity; and e) practical harvest limitations that result in *de facto* refugia.

The main challenges involve obtaining and correctly interpreting available scientific information. To this end, communication with management agencies and researchers is imperative, and information exchange and cooperation between the DLNR, NOAA, and DSA is essential to making sound NDFs. Another issue is that the state of Hawaii and the Western Pacific Fishery Management Council frequently changes the regulations, including size restrictions and MSY, based on new scientific data. It is imperative that US FWS is up to date on these recent changes, so that they can consider these when making NDFs.