# *Holothuria atra* - ANEITYUM_2013-12

The selected data includes **57 habitat zone(s)** of the study area ( **15.88 km²**). The field census occurred from 04/12/2013 to 07/12/2013. **273 transects** are considered in the results below.

Zones : Z001 ; Z002 ; Z003 ; Z004 ; Z005 ; Z006 ; Z007 ; Z008 ; Z009 ; Z010 ; Z011 ; Z012 ; Z013 ; Z014 ; Z015 ; Z016 ; Z017 ; Z018 ; Z019 ; Z020 ; Z021 ; Z022 ; Z024 ; Z026 ; Z027 ; Z030 ; Z031 ; Z032 ; Z033 ; Z034 ; Z035 ; Z036 ; Z037 ; Z038 ; Z040 ; Z041 ; Z042 ; Z043 ; Z044 ; Z045 ; Z046 ; Z047 ; Z048 ; Z049 ; Z051 ; Z052 ; Z053 ; Z054 ; Z055 ; Z056 ; Z058 ; Z059 ; Z060 ; Z061 ; Z062 ; Z063 ; Z064 ;

**Reference indicators for all individuals**

Reference indicators include biomass, abundance and density estimates.

The conservative stock biomass of all individuals is **393897 kg** (wet) and the conservative total abundance is **2617903 individual(s)**. This wet biomass is equivalent to **196948 kg** of gutted and salted products, and **19695 kg** of of dried products (bêche-de-mer).

The conservative mean density estimate of all individuals is **1648 individual/ha** and **248 kg/ha** over the selected habitat zones .

The above estimates incorporate measure uncertainty that is attributable to survey method and heterogeneous resource distribution over the survey site.

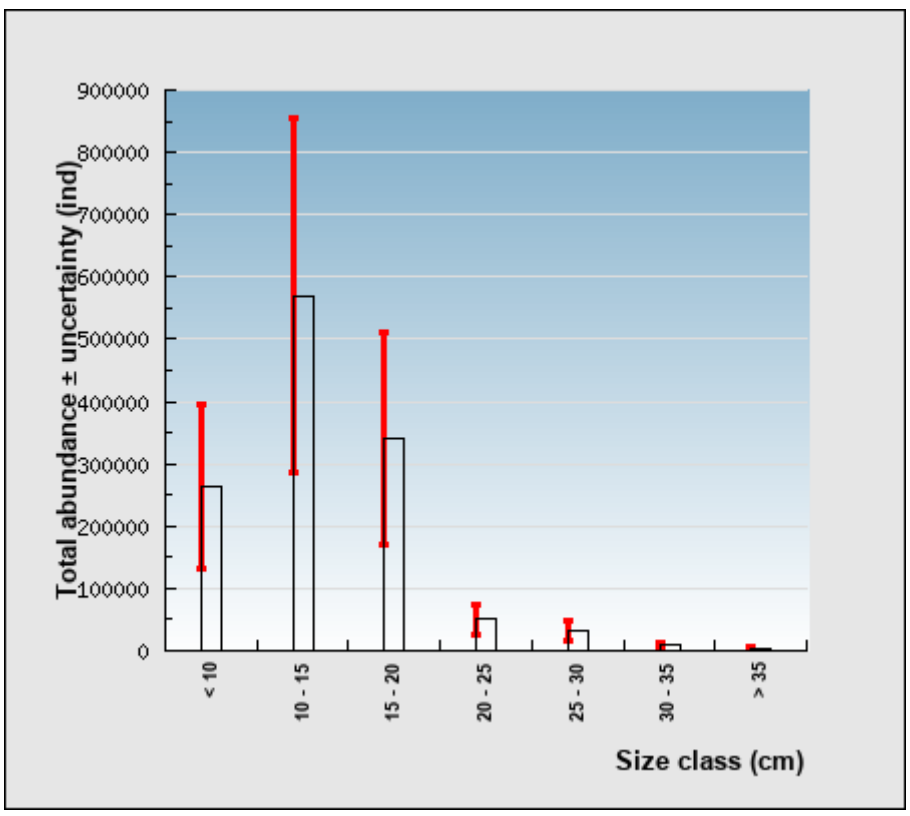
**Biological interpretation**

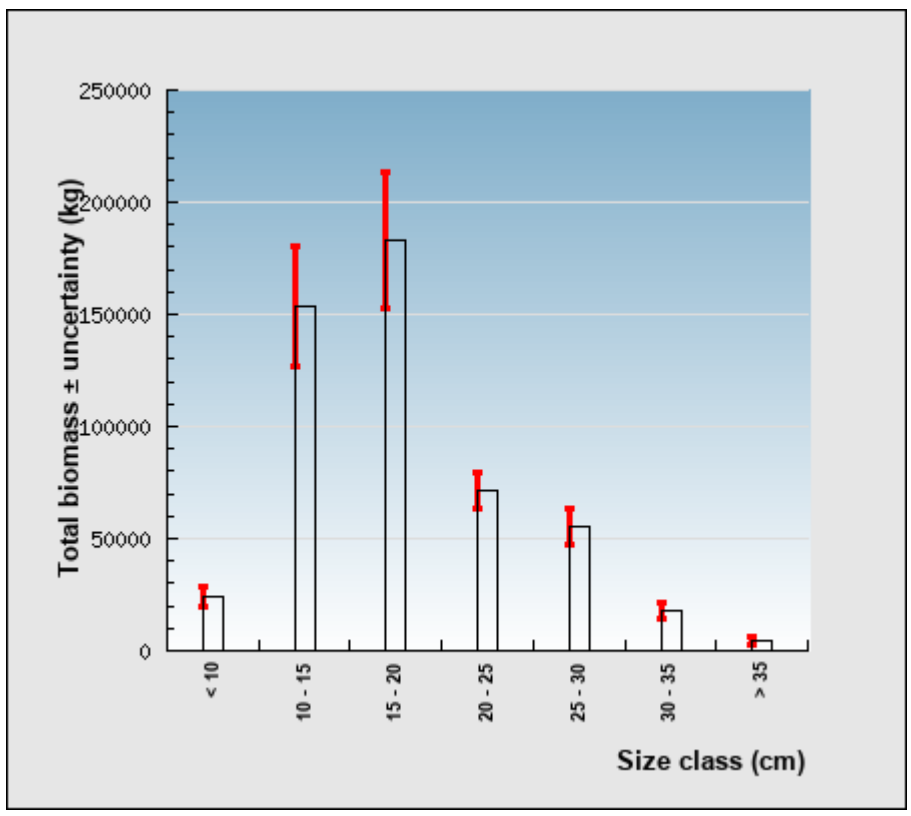
Legal-sized individuals (200 mm) represent **31 % of the total stock biomass**. This high proportion means that small individuals were rarely observed during survey compared to large individuals, and may be indicative of recruitment failure. **Consequently, the recommended TAC must range between 64.52 % and 96.78 % of the estimated TAC (see table) as a precautionary approach.**

| **Total stock estimates for *Holothuria atra*** | |
|---|---|
| (all sizes) | 509.382 t ± 115.485 t |

| **Recommended TAC (Total Allowable Catch, or quota) of legal-sized individuals (200 mm) :** | |
|---|---|
| Fresh/wet products | 122.972 t |
| Salted and gutted products | 61.486 t |
| Dried products (bêche-de-mer) | 6.149 t |

**Size structure of the whole stock of Holothuria atra**




**Size distribution of observed sea cucumbers** (n=10645)