

# *Holothuria atra* - EFATE-WEST\_2013-02

The selected data includes **100 habitat zone(s)** of the study area (**11.69 km<sup>2</sup>**). The field census occurred from 11/02/2013 to 20/03/2013. **266 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 ; Z023 ; Z024 ; Z025 ; Z026 ; Z027 ; Z028 ; Z029 ; Z030 ; Z031 ; Z032 ; Z033 ; Z034 ; Z035 ; Z036 ; Z037 ; Z038 ; Z039 ; Z040 ; Z041 ; Z042 ; Z043 ; Z044 ; Z045 ; Z046 ; Z047 ; Z048 ; Z049 ; Z050 ; Z051 ; Z052 ; Z053 ; Z054 ; Z055 ; Z056 ; Z057 ; Z058 ; Z059 ; Z060 ; Z062 ; Z063 ; Z064 ; Z065 ; Z066 ; Z067 ; Z068 ; Z069 ; Z070 ; Z071 ; Z072 ; Z073 ; Z074 ; Z075 ; Z076 ; Z077 ; Z078 ; Z079 ; Z080 ; Z081 ; Z082 ; Z084 ; Z085 ; Z086 ; Z087 ; Z088 ; Z089 ; Z090 ; Z091 ; Z092 ; Z093 ; Z094 ; Z095 ; Z096 ; Z097 ; Z098 ; Z099 ; Z100 ; Z101 ; Z102 ;

## Reference indicators for all individuals

Reference indicators include biomass, abundance and density estimates. The conservative stock biomass of all individuals is **18550 kg** (wet) and the conservative total abundance is **70147 individual(s)**. This wet biomass is equivalent to **9275 kg** of gutted and salted products, and **928 kg** of dried products (bêche-de-mer).

The conservative mean density estimate of all individuals is **60 individual/ha** and **15.9 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 **59 % 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 33.9 % and 50.85 % of the estimated TAC (see table) as a precautionary approach.**

## Total stock estimates for *Holothuria atra*

(all sizes)  $23.952 \text{ t} \pm 5.402 \text{ t}$

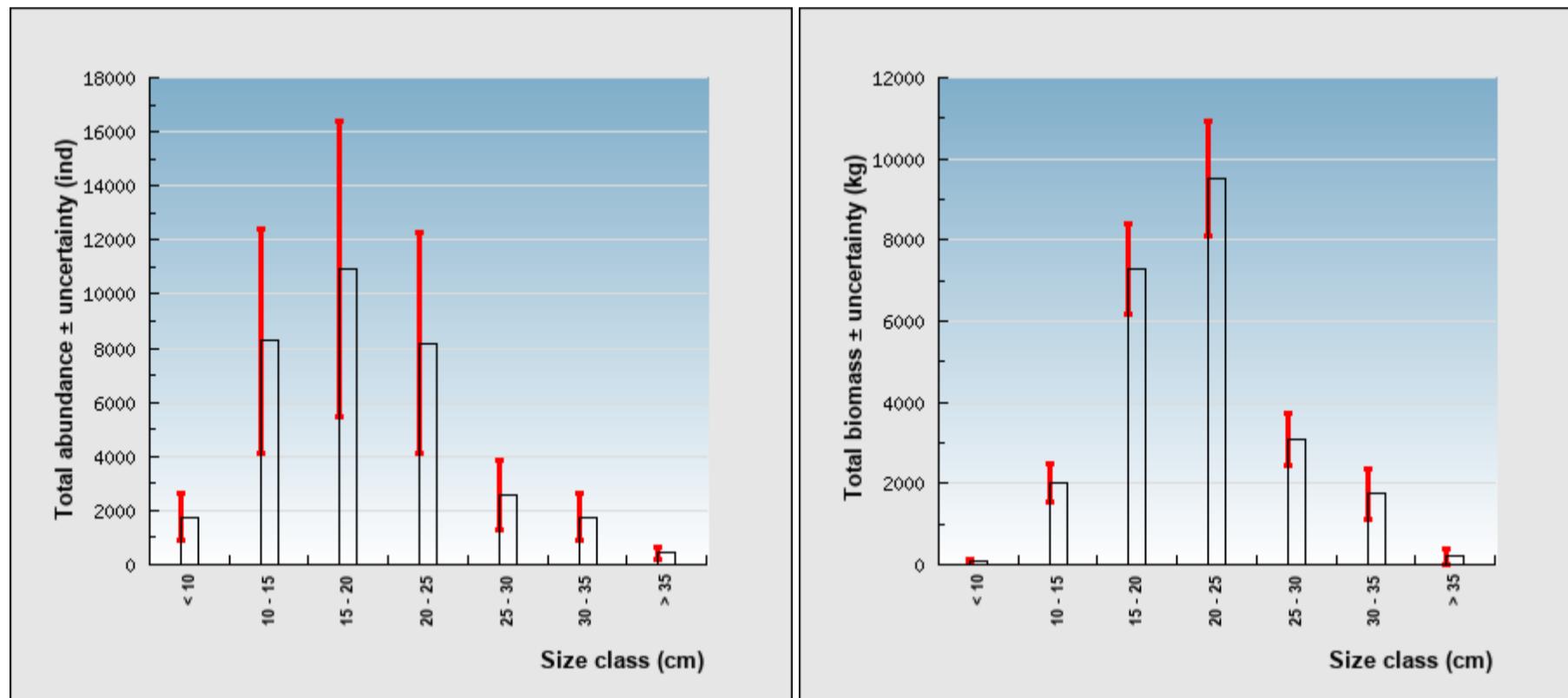
## Recommended TAC (Total Allowable Catch, or quota) of legal-sized individuals (200 mm) :

Fresh/wet products 10.858 t

Salted and gutted products 5.429 t

Dried products (bêche-de-mer) 0.543 t

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



## Size distribution of observed sea cucumbers (n=433)

