

## SPORT FISHERY COMPETITIONS IN LA REUNION FROM 2000 to 2012: ZOOM ON BILLFISH CATCHES

---

Pierre Gildas FLEURY<sup>1</sup>, Jacques GRANDCHAMP<sup>2</sup> et Jérôme BOURJEA<sup>1</sup>

<sup>1</sup>IFREMER, Institut Français de recherche pour l'exploitation de la Mer, Délégation de l'Océan Indien

<sup>2</sup>CRPPS, Comité Régional des Pêcheurs Plaisanciers et Sportifs de La Réunion

### Abstract

In La Reunion, recreational fishing is an important activity that mainly targets large pelagic fishes and sometimes interacts with professional fishing by illegal resale of fishes. In order to differentiate themselves from illegal non-professional fishers, the Regional Committee of Sport and Recreational Fishermen (CRPPS) from La Reunion wanted to show transparency in their practices collecting fishing statistics. However, CRPPS does not collect data from all the fishing operation of its members and official data comes only from fishing competitions organized by different clubs of the island. Here, we analyzed data from 12 seasons of sport fishing competition (2000-01 to 2011-12). Although being very specific, these data are interesting as they provide a relatively standardized fishing effort: fishing operation of 10h30 long, open water fishing (excluding DCP), etc..

The dataset is composed of 133 days of competition, with more than 1,600 fishing trips, that allowed catching more than 1300 large pelagic fishes (tunas, wahoo, dolphin fish, marlins, etc.) corresponding to more than 30 tons. Billfish represent 12% of the total individual catches and are mainly composed of blue marlin. Catches of sailfish and Short Bill Spearfish remain marginal (15 and 20 fishes in 12 years).

Data available for marlins are from 128 fishes but total weights are partly biased because of small fishes (<80 kg) that are released and not weighed (therefore estimated at 80kg). Only marlins above 80 kg are weighed but not measured and sex is not identified. It is worthwhile noting that the identification of the species (between blue marlin, *Makaira nigricans* (the most common) and black marlin, *Makaira indica*) is not always clearly identified.

Despite these biases, the data allowed to assess the seasonal pattern and the evolution of multi-year yields (CPUE by weight or number of fish caught per boat) and average individual weights. For instance the marlin sp. CPUE shows a fairly strong fishing season from December to March. CPUE also shows a decrease in 2007-2008 and 2008-2009 to return to their previous values (around 1 fish per 10 fishing trips).

The most significant results are related to the weight of marlin sp. which decreases slightly from 110 kg at the beginning of the period to 75 kg the last two years ( $r^2 = 39\%$ ). This decrease may also reflect not necessarily a decreased of large marlins, but an increase of small individuals caught (estimated at 80 kg). These small fishes use to be released during the contest by CRPPS fishermen, but this is not necessarily the most frequent case.

**Key words:** Sport fishery, La Réunion, Billfish, Marlins, CPUE, fish weight.