

## By-catch from an experimental trap fishery for the deep sea red crab *Chaceon affinis* off Madeira and the Canary Islands

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From 2005 until 2008 a series of research cruises were carried out off the Canary and Madeira islands in order to explore the fishery potential of the deep sea crab *Chaceon affinis* (A. Milne-Edwards & Bouvier, 1894) in the frame-work of the PESC PROF 2 and 3 projects (Deep-sea resources of the eastern central Atlantic).

Two different types of bottom traps, ICCM with a lateral entrance and MMF with an upper entrance, were used. In every haul, 13 MMF (413 valid fishing operations off the Canaries and 442 off Madeira) and 7 ICCM (217 off the Canaries and 143 off Madeira) traps, baited with Spanish mackerel (*Scomber colias*) were deployed, between 600 and 1100 m, for an average of 20 hours. The target species and its associated by-catch were studied.

A total of 23 species of crustaceans and 16 species of fish were collected.

Off the archipelago of Madeira, in MMF traps, catches of *C. affinis* accounted for 47% of the total number of specimens caught and 57% of the total catch weight, versus 34% and 10% respectively in the ICCM traps. Off the Canaries, *C. affinis* accounted for 58% (number) and 76% (weight) in the MMF traps, versus 45% and 26% respectively in ICCM traps. In terms of inter-specific selectivity of traps, these results suggest the same trend in both archipelagos.

Off the Madeira archipelago, the by-catch composition comprised 11 crustacean species and 3 fishes for MMF traps, versus 10 crustaceans and 6 fishes for ICCM traps. Off the Canaries, the by-catch composition was 11 crustaceans and 8 fishes for MMF traps, versus 11 crustaceans and 9 fishes for ICCM traps. In terms of a predominance of crustaceans versus fishes, these results also suggest the same trend in both archipelagos.

In 2009 a new project called MARPROF (PCT MAC 2007-2013, MAC/2/065) started and the evaluation of *C. affinis* stocks in both archipelagos will be done in order to confirm this species as an alternative to the traditional fisheries resources.