

RECOMMENDATIONS ON ROCK LOBSTER TAC's FOR THE TRISTAN GROUP OF ISLANDS FOR THE 2011/12 SEASON

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[NB: The recommendations made below are for the TACs that would have applied in the absence of the Oliva incident. Consequential recommended adjustments to the values given below for Nightingale and Inaccessible will follow in due course.]

The assessment models used to provide advice for TACs for the islands have been extensively revised over the last year. They now incorporate age-structure of the populations, and take into account length distribution data from the fishery, data on discards, and estimates of lobster growth rates, thus providing an improved basis for advice.

Advice must be given with long-term objectives for the fishery in mind. Two possibilities for such long-term-linked criteria have been explored. The first, reflected by row 2) in the Table 1 below, is to maintain the exploitable biomass of the resource, and hence the catch rate (CPUE) at its present level. The second, with results shown in row 3), aims to stabilize each population at the same fraction of pristine spawning biomass; the common 85% target value chosen is high and conservative by normal fisheries standards, but is considered appropriate at this early stage of changing to the new modeling approach which has some associated uncertainties. One of these uncertainties concerns the lobster growth rates at each island. In two cases this is particularly uncertain, so that results shown are for what is thought to be the best estimate of this rate, with bracketed figures for an alternative rate.

Final decisions within the ranges reflected by rows 2) and 3), taking into account specific stakeholder requirements, are defensible. Thus, for example, the balanced immediate strategy recommendations put forward in row 4) of the table take account of the particular importance for the local fishers of maintaining the current catch rate at Tristan itself. For the other islands, these recommendations are considered to reflect a reasonable balance between the long-term objectives reflected by rows 2) and 3), taking account also of uncertainties about the lobster growth rates. Note that adjustments compared to current TACs shown in row 1) are all in directions compatible with recent trends in catch rate at the island in question.

Table 1: Four options for TACs (in MT) for the 2011/12 season

| TAC 2011/12 | Inaccessible | Nightingale | Tristan | Gough | Total |
|-----------------------------------|--------------|-------------|---------|----------|-----------|
| 1) Unchanged | 105 | 72 | 180 | 85 | 442 |
| 2) RY based on B_{exp} | 88 | 76 (76) | 174 | 94 (75) | 432 (413) |
| 3) All $B_{sp}(61)/K=0.85$ | 110 | 43 (55) | 220 | 112 (90) | 485 (475) |
| 4) Balanced intermediate strategy | 95 | 65 | 174 | 95 | 429 |