

RECOMMENDATION REGARDING A WITHIN-SEASON AMENDMENT OF THE TAC FOR NIGHTINGALE FOR THE 2013/14 FISHING SEASON

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Background

The following advice was provided for Nightingale in June (MARAM/TRISTAN/2013/JUN/10):

“The situation at Nightingale is unclear, given the unexpectedly high CPUEs experienced over the past season. It is necessary to see how these CPUEs might change over the immediate future before the reasons for these high values hopefully become more evident and allow a reliable assessment to be conducted. In the meantime, a PUCL (Precautionary Upper Catch Limit) of **40 MT** is recommended. This is to be taken in a minimum of two tranches of 20 tons/tranche in a normal commercial fishing pattern of 5-7 days duration. This value may be increased to 65 MT (the pre-OLIVA level) at a later stage of the season depending on the CPUEs attained during these tranches. The exact rule for this adjustment is yet to be formulated; a recommendation will be developed by September.”

Adjustment rule

Before the Olivia incident, on the basis of the CPUE values at that time, a TAC of 65 tons was considered appropriate for Nightingale. While the CPUEs obtained last season at Nightingale were anomalously high, it would seem reasonable to assume that “normality” has now been restored and that CPUEs this season can be considered as comparable to those attained pre-Oliva and representative of abundance.

Hence provided CPUE’s in this season’s initial 40 MT take are such as to confidently reflect an underlying abundance at least as good as over the 2008-2010 period, it would be appropriate to increase this season’s TAC from 40 to 65 MT.

The 40 MT will likely be taken during 2 or 3 tranches of commercial fishing by the end of November 2013. Fortunately over the September-November period, GLM analyses have shown monthly change in catchability to be negligible, so that data collected within this period may be considered comparable and may thus be pooled. Furthermore over recent years the nominal and GLM-standardised CPUEs have been similar.

It is thus viable to use nominal CPUE collected over the September-November period as the basis to determine whether abundance is as high as in the 2008-2010 period, thus justifying a TAC increase. Some threshold value is needed for a rule which would correspond to high probability that this is indeed the case.

Table 1 reports the nominal CPUE values for Nightingale for each of September, October and November for the years 2008 to 2010. The values vary, so to err on the side of safety, one would want a rule that requires a CPUE for the opening months of the coming season that is greater than most of these nine values.

Our **recommendation**, in line with this approach but allowing also for some flexibility, is therefore as follows.

- a) If the CPUE attained during the coming September-November is larger than 8 of the 9 values in Table 1 – then the TAC is to be increased to 65 mt – with rounding the threshold CPUE for this full increase is 4.4 kg/trap.
- b) However, if this CPUE is larger than only 6 of the 9 values, the TAC increase will be limited to half of the 25 MT that would otherwise have been added, so that the final TAC will be 52.5 tons – with rounding the threshold CPUE for such an increase is 4.0 kg/trap.

Table 1: The Nightingale monthly nominal CPUE's (in kg/trap) during the years 2008, 2009 and 2010.

	2008	2009	2010
September	3.183	4.523	3.996
October	4.386	3.240	4.206
November	4.054	4.954	2.558