

**Current (OMP-08) yield drop expectations relative to revised MSC Target Reference Points for Low Trophic Level species.**

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In light of the proposed changes to management requirements for MSC certification of LTL species, the OMP-08 control parameters were changed to get expectations of 75%B<sub>0</sub>. Estimates of what the yield loss for the directed sardine and anchovy fisheries would be relative to current OMP-08 expectations are reported in Table 1 below.

As the definition of B<sub>MSY</sub> is not straightforward, it has been taken to be at 40% of B<sub>0</sub> (slightly higher actually than deterministic B<sub>MSY</sub> in our models). Note that current OMP-08 targets were outputs following decisions based on risks of fluctuating below threshold levels, not inputs.

Table 1. Expectations of yield drop for varying target levels from current single species models.

<b>Directed sardine</b>		
<i>Target/B<sub>0</sub> target</i>	<i>Catch relative to that at MSY</i>	<i>Catch relative to current target</i>
40%	-	-
68%	-17%	-
75%	-30%	-16%
<b>Anchovy</b>		
40%	-	-
61%	-11%	-
75%	-36%	-28%

Thus these single species models reflect yield drops of 30-35% compared to the slightly less than 20% suggested by the multi-species models of Smith *et al.* 2011, and losses of about 15 - 30% if we moved from current target levels to the 75%B<sub>0</sub> target.

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