

Performance indicator	Relevant activity that causes the risk	Sub-component	Moderate (60)	Minor (80)	Negligible (100)
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PRINCIPLE 1	A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.				
Explanation and Component	<i>Principle 1 only deals with one component: the target population. The Scoring Guidelines for the effects of each relevant activity on each target population sub-component, derived from the Risk Assessment statements in the Assessment Tree, are set out below</i>				
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Risk analysis shows that the effect of fishing activity on geographic range of the PNBA yellow mullet population is within acceptable limits	Fishing on yellow mullet from all fisheries	Geographic range	Geographic range of population approximately delineated; no changes geographic distribution of landings or effort apparent which would suggest a change over time	Geographic range of population known; ad hoc monitoring across range suggests no change over time.	Population monitored across its full geographic range on a regular basis, with no changes observed over time.
Risk analysis shows that the effect of fishing activity on population size of yellow mullet is within acceptable limits	Fishing on yellow mullet from all fisheries	Population size	Full exploitation rate but recruitment dynamics not affected. Decrease in CPUE but no concerns reported by fishermen, no change in indices of recruitment.	Change in population size or growth rate possibly detectable but impact on population size and dynamics minimal. Possible decrease in CPUE but change small, no concerns reported by fishermen.	Insignificant change to population size and growth rate: unlikely to be detectable against background variability. No trends in Catch per Unit Effort (CPUE)
Risk analysis shows that the effect of fishing activity on yellow mullet stock composition (sex) is within acceptable limits	Fishing on yellow mullet from all fisheries	Population sex structure	Detectable male bias in sex ratio due to focus of fisheries on females; some possible impact on dynamics but recruitment not significantly affected	Possible minor deviation from 1:1 sex ratio due to focus of fisheries on females, but impact on population dynamics minimal	Population sex ratio remains close to 1:1 – any change not detectable from sampling noise

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Risk analysis shows that the effect of fishing activity on yellow mullet stock composition (age / size) is within acceptable limits	Fishing on yellow mullet from all fisheries	Population size / age structure	Changes in age / size structure with impact on population dynamics, but recruitment not significantly affected	Possible minor changes in age / size structure but impact on population dynamics minimal	No detectable change in population age / size structure; unlikely to be detectable against background variation
Risk analysis shows that the effect of fishing on yellow mullet reproductive capacity is within acceptable limits	Fishing on yellow mullet from all fisheries	Reproductive capacity	Changes in reproductive capacity with impact on population dynamics, but long-term recruitment dynamics not significantly affected	Possible minor changes in reproductive capacity but impact on population dynamics minimal	No detectable change in reproductive capacity; unlikely to be detectable against background variation
A risk analysis shows that the effect of fishing activity on yellow mullet behaviour and movement is within acceptable limits	Fishing on yellow mullet from all fisheries	Behaviour / movement	Visible changes in spawning behaviour and location and/or migration dynamics, but recruitment not significantly affected.	Possible changes in spawning behaviour and location and/or migration dynamics, but impact on population dynamics minimal.	No detectable change in spawning behaviour or location, or migration dynamics.
A risk analysis shows that the effect of fishing activity on yellow mullet genetic structure is within acceptable limits	Fishing on yellow mullet from all fisheries	Genetic structure	Detectable change in genetic structure and effective population size. Change in gene frequency <10%. Impact on population size and dynamics acceptable.	Possible detectable change in genetic structure and effective population size. Change in gene frequency <5%. Impact on population size and dynamics minimal.	No detectable change in genetic structure or effective population size. Unlikely to be detectable against background variability
A risk analysis shows that the effect of non-fishing anthropogenic activities (e.g. oil and gas exploitation) on yellow mullet population size is within acceptable limits	Non-fishing anthropogenic activities	Population size	Visible effect of non-fishing anthropogenic activities on population size or CPUE, but recruitment dynamics not affected.	Change in population size or growth rate associated with non-fishing anthropogenic activities possibly detectable but impact on population size and dynamics minimal. Possible decrease in CPUE but change small, no concerns reported by fishermen.	No detectable change to population size and growth rate associated with non-fishing activities: unlikely to be detectable against background variability. No trends in Catch per Unit Effort (CPUE)

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A risk analysis shows that the effect of non-fishing anthropogenic activities on yellow mullet behaviour / movement is within acceptable limits	Non-fishing anthropogenic activities	Behaviour / movement	Visible effect of non-fishing anthropogenic activities on reproductive or migratory behaviour, but reproductive output and recruitment dynamics not affected.	Possibly detectable change in reproductive or migratory behaviour associated with non-fishing anthropogenic activities, but impact on population size and dynamics minimal.	No detectable change to reproductive or migratory behaviour associated with non-fishing activities: unlikely to be detectable against background variability.
A risk analysis shows that the level of fishing activity will allow the yellow mullet population size to rebuild back to acceptable levels	Fishing on yellow mullet from all fisheries	Population size	Population size likely to reach target acceptable level within target time frame.	Population size highly likely to reach target acceptable level within target time frame	Data demonstrates that population size will reach target acceptable level well within target time frame.
Risk analysis shows that the effect of lost gear and ghost fishing on yellow mullet population size is within acceptable limits	Gear loss	Population size	Visible effect of lost gear and ghost fishing on population size or CPUE, but recruitment dynamics not affected.	Change in population size or growth rate associated with lost gear and ghost fishing possibly detectable but impact on population size and dynamics minimal. Possible decrease in CPUE but change small, no concerns reported by fishermen.	No detectable change to population size and growth rate associated with lost gear and ghost fishing: unlikely to be detectable against background variability. No trends in Catch per Unit Effort (CPUE)

PRINCIPLE 2	Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.
<i>Explanation</i>	<i>Principle 2 deals with four components: including habitats, by-catch species, TPE (threatened, protected and endangered) species and ecological communities. Each of these components is dealt with in a separate table. The Scoring Guidelines for the effects of each relevant activity on each sub-component, derived from the Risk Assessment statements in the Assessment Tree, are set out in each table</i>
Component	Habitat structure and function

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Risk analysis shows that the effect of fishing on benthic habitat type is within acceptable limits	Mullet fishing within the PNBA	Benthic habitat type / distribution	Detectable impact of fishery on habitat type but this includes <50% of sand/silt habitats and/or less <10% of seagrass habitats. Time taken to recover on scale of weeks to months, but <1 year.	Detectable impact of fishery on habitat type. Time taken to recover on scale of days or weeks.	No detectable impact on habitat type. Time taken to recover on the scale of hours to days.
Risk analysis shows that the effect of fishing on benthic habitat structure and function is within acceptable limits	Mullet fishing within the PNBA	Benthic habitat structure and function	Detectable impact of fishery on habitat dynamics or species composition, but this includes <50% of sand/silt habitats and/or less <10% of seagrass habitats. Time taken to recover on scale of weeks to months, but <1 year.	Detectable impact of fishery on dynamics or species composition of habitat. Time taken to recover on scale of days or weeks.	No detectable impact on dynamics or species composition of habitat. Time taken to recover on the scale of hours to days.

Component

Threatened, protected and endangered (TPE) species

NOTE: *TPE species of relevance include sharks, cetaceans, turtles and sea birds*

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Risk analysis shows that the effect of mullet fishing on population size of TPE species is within acceptable limits	Mullet fishing within the PNBA	Population size of TPE species in the PNBA	Possible detectable change to population size of TPE species in the PNBA, due to mortality or to migration away from non-lethal interactions. Impact on population size and dynamics minimal.	Insignificant change to population size of any TPE species in the PNBA, whether due to mortality or migration away from non-lethal interactions.	None, or almost none, are killed. Non-lethal interactions do not cause significant numbers of TPE species to migrate away from the PNBA.

Component

By-catch species

NOTE: *By-catch species of relevance may include a few other fish species*

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	activity that causes the risk	component			
Risk analysis shows that the effect of mullet fishing (including gear loss and ghost fishing) on population size of by-catch species is within acceptable limits	Mullet fishing within the PNBA	Population size of by-catch species in the PNBA	Possible detectable change to population size of by-catch species in the PNBA. Impact on population size and dynamics minimal.	Insignificant change to population size of any by-catch species in the PNBA.	No or almost no by-catch associated with the fishery.
Risk analysis shows that the effect of gear loss and ghost fishing on population size of by-catch species is within acceptable limits	Gear loss	Population size of by-catch species in the PNBA	Possible detectable change to population size of by-catch species in the PNBA. Impact on population size and dynamics minimal.	Insignificant change to population size of any by-catch species in the PNBA.	No or almost no gear loss in the fishery.
Component	Ecological communities				
Risk analysis shows that the effect of fishing activity on biodiversity in the PNBA is within acceptable limits (1)	Mullet fishing within the PNBA	Species composition of PNBA ecosystem	Detectable changes in species composition in the PNBA due to mullet fishing <10%. No loss or major changes in ecosystem function.	Changes in species composition in the PNBA due to mullet fishing <5%. Impacted species do not play a keystone or dominant role. No detectable change in ecosystem function.	Changes in species composition in the PNBA due to mullet fishing are not detectable against background variability
Risk analysis shows that the effect of fishing activity on biodiversity in the PNBA is within acceptable limits (2)	Mullet fishing within the PNBA	Functional group composition of PNBA ecosystem	Changes in relative abundance of community constituents <10%; risk of trophic cascade or change to an alternative stable state considered minimal.	Relatively minor changes in relative abundance of community constituents <5%.	Changes in functional group composition in the PNBA due to mullet fishing are not detectable against background variability
Risk analysis shows that fishing activity does not unacceptably alter food web structure	Mullet fishing within the PNBA	Trophic size / structure	Changes in mean trophic level and/or biomass / abundance in each trophic class <10%.	Relatively minor changes in mean trophic level and/or biomass / abundance in each trophic class <5%.	Changes in trophic size and structure in the PNBA due to mullet fishing are not detectable against background variability

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