

# Pilbara Demersal Scalefish Resource Recovery Plan 2023-2043 (Phase 1)

## Background

The Pilbara Demersal Scalefish Resource (PDSR) includes over 60 demersal scalefish species. The resource is accessed by the Pilbara Trap Managed Fishery, Pilbara Fish Trawl (Interim) Managed Fishery, and the Pilbara Line Fishery (PTMF, PFTIMF & PLF respectively) as well as the recreational and charter fisheries.

The PDSR is managed in accordance with the North Coast Demersal Scalefish Resource Harvest Strategy (Harvest Strategy). The sustainability objectives of the PDSR are set out in the Harvest Strategy and monitored via the use of an 'indicator species' approach, whereby the status of key 'indicator' species is considered representative of the status of the resource.

Under this approach the spawning biomass level of red emperor (*Lutjanus sebae*), bluespotted emperor (*Lethrinus punctulatus*) and rankin cod (*Epinephelus rankini*) are monitored against target, threshold, and limit reference levels. Assessments of the status of other key non-indicator species, such as goldband snapper (*Pristipomoides multidentis*), are also undertaken periodically.

In November 2023, the Department of Primary Industries and Regional Development (DPIRD) finalised the Assessment of the Status of the Pilbara Demersal Scalefish Resource (Fisheries Research Report (FRR) No. 338). The 2023 PDSR stock assessment indicated that the relative female spawning biomass of:

- red emperor (indicator species) had breached the limit reference level and is classified a **depleted stock**;
- bluespotted emperor (indicator species) was above the threshold reference level and is classified a **sustainable stock**;
- goldband snapper (retained non-indicator species) was between the limit and the threshold reference level and is classified a **depleting stock**; and
- rankin cod (indicator species) was not assessed but will be included in the next periodic stock assessment for the PDSR scheduled for completion in 2026.

In accordance with the Harvest Strategy, where the status of an indicator species (or non-indicator species) breaches the threshold or limit reference level, a review is undertaken, and a management response is implemented to recover the resource within two generations (or a maximum of 20 years). A resource is considered to have recovered when the spawning biomass level of all indicator species is above the threshold reference level and being managed to the target reference level.

Model projections outlined the 2023 stock assessment estimated that the catch of red emperor needs to be reduced by at least 38% (from 2022 levels) to recover the stock to above the threshold reference level within 20 years. Given the outcomes of the 2023 stock assessment, the indicator species approach has been applied such that red emperor (high sustainability risk) is considered an indicator for the suite of species with similar

biological characteristics (e.g. late maturation relative to selection by fishing gear, relatively long lived). These species include goldband snapper (also high sustainability risk), saddletail snapper (*Lutjanus malabaricus*), crimson snapper (*Lutjanus erythropterus*), and other species that share similar life history characteristics.

Similarly, bluespotted emperor (medium/acceptable sustainability risk) is considered an indicator for the suite of species with similar biological characteristics (e.g., early maturation relative to selection by fishing gear, shorter lived), including brown-striped snapper (*Lutjanus vitta*).

## Recovery plan

This Recovery Plan has been developed in consultation with key stakeholder groups and involves a phased approach to recover the spawning biomass of red emperor and the suite of species represented by red emperor (recovery species) to above the threshold reference level within 20 years. The Recovery Plan will involve three phases as summarised below, with this version initially focusing on Phase 1.

**Phase 1 (1 January 2024 to 30 June 2026):** Reduce the total retained catch of recovery species by 25% (from the 2022 level) to stabilise the resource and to halt further decline, while allowing industry to adjust their businesses and alter fishing behaviour. This is commensurate with a 25% reduction from the estimated level of Maximum Sustainable Yield (MSY) (see FRR No. 388).

**Phase 2 (from 1 July 2026 to 2043):** Commence full recovery through further changes to achieve the necessary reduction in total retained catch of recovery species (currently set at 38% based on FRR No. 388), unless otherwise informed by outcomes of the 2026 stock assessment.

**Phase 3 (from 2043):** Manage the status of the resource to the target reference level to meet stakeholders social and economic objectives.

### Phase 1: Initiate recovery

**Phase 1 objective:** Stabilise the spawning biomass level of recovery species in the PDSR.

**Key strategy:** Maintain each sector/fishery's catch below Phase 1 recovery benchmarks (Table 3).

#### Phase 1 actions:

- Adjustments to existing management arrangements for commercial fisheries to achieve a 25% catch reduction of recovery species from 2022 levels (Table 3).
- Catches of all other demersal scalefish species to be maintained at the 5-year average, up to the catch tolerance ranges outlined in the Harvest Strategy (inclusive of recovery species).
- Key management changes include:
  - A 15% reduction in capacity (effort) in the PTMF and PFTIMF and a 40% reduction in potential effort in the PLF.
  - Adopting co-management via a Memorandum of Understanding (MoU) for the PFTIMF and PTMF to manage red emperor catches to the recovery benchmark.
  - DPIRD to provide regular commercial sector catch updates to assist industry in monitoring of the level catch against recovery benchmarks.
  - Maintain current PLF arrangements (3-month fishing season) in 2024, for review prior to the commencement of the 2025 season (1 January 2025).

- The development of a Management Plan for the PLF and introduce more flexible management arrangements (scheme of entitlement) ahead of Phase 2.
- Alignment of licensing periods to a financial year for all commercial fisheries, ahead of Phase 2.
- Manage the recreational (including charter) sector's total fishing mortality to the 5-year historic average (2018-2022).
- Undertake annual reviews of all fisheries that access the PDSR, to monitor total catch against recovery benchmarks and implement additional action if required, as outlined in the Harvest Strategy.

Key steps and timelines associated with Phase 1 are outlined in Table 1.

**Table 1. Timeframes for Phase 1 and the commencement of Phase 2**

	2024				2025				2026				2027	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>Trap licensing period</b>	Phase 1				Phase 1 Transitional licensing period <sup>†</sup>				Phase 1				Phase 2	
<b>Line licensing period</b>	Phase 1				Phase 1 Transitional licensing period <sup>†</sup>				Phase 1				Phase 2	
<b>Trawl licensing period</b>	Phase 1				Phase 1				Phase 1				Phase 2	
<b>Research</b>	2023 stock assessment	Area 3 sampling				NCDSR ecological risk assessment	Statewide boat-based recreational fishing survey (iSurvey)		2026 stock assessment					
<b>Resource management</b>		Phase 1 management development		Science advice for Pilbara Trap capacity setting		Science advice / annual review			Phase 2+ management development		Science advice / annual review			Science advice / annual review
<b>Trap management</b>		Management plan review – transition to financial year		Capacity Setting for 6-month period		Capacity Setting for 12-month period					Capacity setting for 12-month period			Capacity setting for 12-month period
<b>Line management</b>		Interim management plan development			Management plan commencement									Capacity setting for 12-month period
<b>Trawl management</b>	WTO reassessment	Management plan review – capacity reduction				Capacity setting for 12-month period					Capacity setting for 12-month period			Capacity setting for 12-month period
<b>Rec/charter management</b>		WTO reassessment				Management review of recreational and charter sector*					Implement management changes for Phase 2			

\* Following release of 2023-24 statewide survey of recreational boat-based fishers due mid-2025.

† Phase 2 will be the remainder of 38% reduction, unless otherwise informed by the 2026 stock assessment.

‡ Timeframe subject to resourcing, may be extended for implementation in 2026.

## Recovery benchmarks

To inform the development of recovery benchmarks, the historic average catch shares for the 5-year period between 2018 and 2022 (inclusive) for all fisheries was considered (Table 2).

Phase 1 recovery benchmarks achieve a 25% reduction (from 2022 levels; equivalent of 25% of MSY estimate) in catch of the recovery species (Table 3).

**Table 2.** Catch share allocations for the recovery species based on catch averages from the 5-year period (2018-2022 inclusive)

Species	PFTIMF	PTMF	PLF	Recreational (including charter)*
Red emperor	41.1%	51.0%	0.9%	7.0%
Goldband snapper*	30.6%	25.5%	38.9%	5.0%
Crimson snapper	79.8%	18.4%	0.8%	1.0%
Saddletail snapper	73.0%	16.4%	7.0%	3.6%

**Table 3.** Phase 1 recovery benchmarks (tonnes for the recovery species for the commercial (PFTIMF, PTMF, PLF), and recreational (including charter) fisheries

Species	PFTIMF	PTMF	PLF	Recreational (including charter)*	Total recovery benchmark
Red emperor	52.2	64.8	1.2	35.5	127.0
Goldband snapper*	46.4	38.7	59.1		152.0
Crimson snapper	126.9	29.3	1.3		159.0
Saddletail snapper	62.8	14.1	6.0		86.0

\* Includes all catches from goldband snapper or goldband snapper like species; sharptooth snapper (*Pristipomoides typus*), rosy snapper (*Pristipomoides filamentosus*), and uncategorised jobfish (*Pristipomoides* spp).

\* RECREATIONAL catches include all catches within the Pilbara zone of the recreational North Coast Region (114.50°E to 120°00'E) and charter catches include all catches from the western boundary of the Pilbara Line Fishery (21°56'S) to 120°00'E.

## Non-recovery species benchmarks

Bluespotted emperor, rankin cod, and other demersal species with similar biological characteristics (e.g. early maturation relative to selection by fishing gear, relatively short to moderate longevity) will be managed to the 5-year average of the reported retained catch (2018-2022 inclusive) up to the catch tolerance ranges outlined in the Harvest Strategy (inclusive of recovery species benchmarks). With future revisions of the Harvest Strategy and the finalisation of the 2026 Stock Assessment, the catch limits for these species may be revised.

## Review process

To evaluate success of the Recovery Plan and management arrangements, DPIRD will undertake annual reviews of all fisheries against recovery benchmarks and catch tolerance ranges as outlined in the Harvest Strategy.

If a fishery breaches a recovery benchmark or catch tolerance range, a review is to be initiated to investigate the cause and where necessary, options developed to adjust that fishery's catch to below the recovery benchmark or catch tolerance level.

Periodic reviews of the PDSR will also be undertaken in the form of Weight-of-Evidence stock assessments, in which catch tolerance ranges and recovery benchmarks may be reviewed. Phase 2 will be developed to implement the remainder of the 38% reduction, unless otherwise informed by the outcomes of the 2026 stock assessment.

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