

**Template for the compilation of information describing specific habitats in the
southern Pacific Ocean**

NOTE: The aim of this document is to identify and describe specific habitat types which may be impacted by fishing, the species that occupy that habitat, and to identify any threats to that habitat from current fishing practices within the proposed SPRMFO boundaries.

In this document habitat refers to the combination of the physical environment and its distinctive assemblage of conspicuous species. This definition also applies to the term ‘Biotope’.

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1. Overview

2. Physical Description

This section should include a description of the type of habitat under review e.g. seamounts, shelf slopes, deep trenches, ridges, plateaus, elevation/depth, sediment type.

< Insert picture >

2.1 Distribution

A map would be useful here showing the habitat distribution within the South Pacific area. A general description of the location of the habitat type within the area should be provided.

This section should include total area estimates of the specified habitat type within the South Pacific area where possible. For certain habitats the number of specific locations identified may be more appropriate. Methods used to create this estimate should also be described.

3. Biological Description

3.1 Species associated with the habitat

This should include all known species associated with the habitat type and their known roles in the ecosystems (i.e. are they keystone species?). Species can be ranked indicative of habitat sensitivity (see www.marlin.ac.uk for examples).

RANK

CRITERIA¹

Key structural species

The species provides a distinct habitat that supports an associated community. Loss/ degradation of the population of this species would result in loss/ degradation of the biotope.

Key functional species

The species maintains community structure and function through interactions with other members of that community (for example, predation, grazing, and competition). Loss/ degradation of the population of this species would result in rapid, cascading change in the biotope.

¹ The rank and criteria used here are based on the Marine Life Information Network system available at www.marlin.ac.uk.

Important characterising species	The species is/are characteristic of the biotope and is/are important for the classification of the biotope. Loss/ degradation of populations of these species would result in loss of that biotope.
Important structural species	The species positively interacts with the key or characterising species and is important for their viability. Loss/ degradation of populations of these species would likely reduce the viability of the key or characterising species. For example, these species may prey on parasites, epiphytes or disease organisms of the key or characterising species.
Important functional species	The species is/are the dominant source of organic matter or primary production within the ecosystem. Loss/degradation of these species could result in changes in the community function and structure.
Important other species	Additional species that do not fall under the above criteria but where present knowledge of the ecology of the community suggests they may affect the sensitivity of the community.

Is this particular habitat type believed to serve as a stepping stone for the dispersal or migration of particular species?

Is there a particular species lifecycle stage associated with this habitat?

Is this habitat type essential fish habitat?

Is this habitat type a hotspot for biodiversity?

3.2 Endemic Species

This should include information on rates of endemism and endemic species associated with the specified habitat type if appropriate.

3.3 Productivity

Is this habitat an area of elevated productivity, e.g. associated with upwelling?

4. Habitat sensitivity

A general relative measure of habitat sensitivity, on the following scale (www.marlin.ac.uk):

<u>RANK</u>	<u>DEFINITION</u>
High	Key structural or key functional species in the biotope are likely to be killed and/or the habitat is likely to be destroyed by fishing practices.
Intermediate	The population(s) of key structural or key functional species in the biotope may be reduced/degraded by fishing practices, the habitat may be partially destroyed or the viability of a species population, diversity and function of a community may be reduced.
Low	Key structural or key functional species in the biotope are unlikely to be killed/destroyed by fishing practices and the habitat is unlikely to be damaged. However, the viability of a species population or diversity/functionality in a community may be reduced.
Not sensitive	Fishing practices do not have a detectable effect on structure and functioning of a biotope or the survival or viability of key structural or key functional/important species.

5. Fishing Practices

5.1 Fishing Technology

What fishing methods currently used in/around/on this habitat type?

Is specific technology used to fish in/around/on this habitat type?

5.2 Fishing History

This section should include the country (flagged fishing vessel), location, seasonality, target species, catch and bycatch information for any fishing in/ around/on the specified habitat type.

5.3 Illegal, unregulated and unreported fishing

Known or estimated IUU fishing in/on/around this habitat type.

6. Impacts of Fishing

6.1 Habitat Damage

This section should include information regarding damage to habitat caused by fishing. Both direct and indirect effects should be included.

Due to limited specific research in the high seas areas of the South Pacific, a global perspective would be useful here, e.g. research completed in areas both inside and outside the South Pacific Ocean should be documented.

6.2 Ecosystem Impacts

This section should include research documenting the broader environmental effects of the relevant fishing method on the ecosystem. Examples include ecosystem effects due to the serial depletion of fished species, and shifts in community structure due to adverse impacts on the habitat type.

A global perspective would be useful here due to limited research available, e.g. studies from other ocean bodies which identify adverse changes that occur due to intense fishing practices around/on/in specific habitat types.

7. Risk assessment

Are documented risk assessments and/or quantifications of the effects of fisheries on the habitat type available? What is the prognosis for the habitat type taking into account the impacts of fishing?

8. Management

8.1 Current management practices

Measures that are currently in place to mitigate and/or restore habitat damage. How effective are these measures?

8.2 Management implications

What are the implications for the future status of the habitat type if current fishing practices continue?

9. Research

9.1 Current and ongoing research

9.2 Future research needs

This should identify research gaps and list priorities where appropriate. How would such research address the identified gaps? How would such research address recognised threats, and in particular, risk from fishing?

10. Additional Comments

11. References