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Ministry of Fisheries
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WELLINGTON



16 September 2009

Submission: Introduction of bladder kelp seaweed (*Macrocystis pyrifera*) in FMAs 3 and 4 into the QMS

Forest & Bird appreciates the opportunity to comment on the initial position paper developed by the Ministry of Fisheries (MFish).

Forest & Bird

Forest & Bird (Royal Forest & Bird Protection Society of New Zealand Inc) is New Zealand's largest independent conservation organisation. Established in 1923 we have campaigned for over 80 years for the protection of New Zealand's native species and the habitats on which they depend.

We have grown to number around 40,000 members - many of whom join us to save their local species and habitats. Our members are people who care passionately about New Zealand's unique and special natural environment and native species, and want to make sure that these natural treasures are protected so that they can continue to be enjoyed by future generations.

The constitutional purpose of Forest & Bird is to:

"To take all reasonable steps within the power of the Society for the preservation and protection of the indigenous flora and fauna and natural features of New Zealand, for the benefit of the public including future generations."

Forest & Bird has a long history of advocacy for the protection of New Zealand's marine environment and has been at the forefront of efforts to protect New Zealand's marine biodiversity.

The values of *Macrocystis pyrifera*

Bladder kelp or giant kelp (*Macrocystis pyrifera*) is a particularly important component of our coastal marine ecosystems. It provides the following ecological values:

- Provision of food for a large range of marine animals, which supports a variety of coastal foodwebs and fisheries;
- Critical habitat for a number of species, including economically valuable species such as paua, rock lobster (crayfish) and finfish;
- Acts as keystone species;
- Provides nursery habitats for finfish and invertebrates;
- Slows currents allowing larval settlement;
- Reduces coastal erosion by minimising wave sizes;
- Reduces pollution (e.g. nutrient run-off from land based sources).

Because of and in addition to these features, *Macrocystis* also provides enormous economic, social and cultural values.

Risks associated with harvesting *Macrocystis pyrifera*

There is a long list of risks associated with the harvesting of this important coastal species. These include:

- Lack of scientific data to assess whether harvesting in New Zealand could be sustainable;
- Removal of *Macrocystis* will probably affect coastal ecosystems and fisheries that rely on kelp productivity;
- The diverse array of invertebrate and fish communities that live on and around *Macrocystis* will be significantly adversely affected;
- Removal of the kelp canopy may affect larval settlement of species such as rock lobster and paua;
- Kelp beds in New Zealand are relatively small and some kelp forest ecosystems thought to be in decline. Harvesting is likely to exacerbate the loss of this key habitat type;
- Harvesting is highly likely to intensify the impacts of invasive kelp *Undaria* on native kelp populations;
- Potential reduction of the productivity of high value fisheries;
- Coastal erosion may increase.

Risks associated with open access

Should *Macrocystis pyrifera* not be added to the Quota Management System, the open-access alternative could lead to rapid depletion of this important marine species. Open access would also enhance the onset of a broad range of adverse coastal ecosystem responses.

The IPP only proposes to introduce *Macrocystis pyrifera* to the QMS within FMAs 3 and 4. However, given its enormous ecological, social, cultural and economic values, the open access option should be prevented throughout New Zealand.

Poor economic viability

Kelp beds in New Zealand are relatively small and are unlikely to be capable of sustaining the levels of harvesting required to make it an economically viable industry. Harvesting of kelp in coastal Tasmania in the 1960's and 1970's failed due to lack of available kelp. Subsequently there has been a 70% decline in the extent of the kelp forests in Southeast Australia and Tasmania and there are plans to make *Macrocystis* kelp forests an endangered habitat type.

Recommendations

Forest & Bird do not support the commercial harvesting of *Macrocystis pyrifera* due to its enormous coastal ecosystem function values and due to the huge lack of information about the impacts of harvesting in New Zealand.

Forest & Bird recommend that:

***Macrocystis pyrifera* be added to the Quota Management System across all FMAs with a Total Allowable Catch (TAC) of zero.**

Any increase in the TAC for *Macrocystis* must be based on:

- Completion of a comprehensive and independent Environmental Risk Assessment that has gone through MFish's peer review processes, e.g. the Aquatic Environment Working Group;
- Completion of a comprehensive and independent socio-economic risk assessment, including a cost-benefit analysis on the economic value of any commercial harvesting relative to associated societal costs;
- A management plan that minimises adverse effects of kelp harvesting on *Macrocystis* and its associated values;
- Identification and protection of kelp forests of rare, distinctive or outstanding value.

Should you have any queries in relation to this submission, please do not hesitate to contact me.

Yours sincerely,

Kirstie Knowles
Marine Conservation Advocate
Forest & Bird