

## **Report from Meeting to discuss the need for a network of voluntary protection areas for wrasse within the Wester Ross Marine Protected Area**

4<sup>th</sup> May, 10:30 am to about 12:30pm, Ullapool Fisheries Office

Attended by: Jamie Smith (SSPO), Dr Dave Cockerill (MHS), Matthew Zietz (WRF), Dr John McIntyre (Isle Martin Trust), Dr Alison McLennan (RSPB), David Donnan (SNH – telephone link), Dr Anne McLay (MSS – by VC link), Dr Nabeil Salama (MSS – by VC link), Jeff Gibbons (Scottish Government – by VC link), Peter Cunningham (SWRFT).

Apologies: Noel Hawkins (SWT), Dr Sam Collins (SWT), Kevin Frediani (NTS Inverewe), Dr Richard Luxmoore (NTS – VC link failed).

### **Background**

The fishery for wild wrasse spp. within the Wester Ross Marine Protected area has developed in recent years to provide a supply of 'cleaner fish' for the removal of parasitic sea lice from farmed salmon. Local salmon farming company, Wester Ross Fisheries, has been particularly successful in controlling parasitic sea lice on its farmed salmon.

The occurrence of sea louse infested sea trout within the area has also diminished in recent years on the basis of sampling and reports received by Wester Ross Fisheries Trust. One heavily louse infested fish was recorded by WRFT in Little Loch Broom in 2014; thereafter none were recorded anywhere within the area by WRFT in 2015 and 2016, despite much sampling effort using sweep net and fyke net. This was in contrast to heavy infestation of sea trout recorded in the area in 2013. There is some evidence from juvenile fish survey data of higher trout fry densities at some sites in the River Broom and Dundonnell River 2016; all consistent with an increase in numbers of adult female sea trout within the area.

Given documented problems with sea lice affecting sea trout within the area in earlier years (and continuing in other areas), it was considered to be in the interests of wild salmon and sea trout fisheries within the area to ensure that a supply of wild caught wrasse to be used in local salmon farms could be sustained, to support the continued recovery of wild sea trout populations and fisheries within the area.

Furthermore, as wild wrasse may also act as cleaner fish for wild salmon and sea trout in the wild, there is also a need to ensure that wild wrasse populations remain healthy within the area<sup>1</sup>.

The proposal, circulated prior to the meeting, was to consider whether a voluntary network of protected areas for wild wrasse within the Wester Ross Marine Protected Area could help to protect wild wrasse populations within the area, and thereby help to sustain wrasse populations and fisheries by supporting recruitment of juveniles within the area [see Appendix 1 and Appendix 2]

This was the main focus for discussion at the meeting.

### **Discussion**

The following points were made:

- The sustainability of the wrasse fishery is of great importance to the salmon farming sector, the local community, conservation NGOs and those licensed fishermen targeting this resource.
- The fishery is seasonal and based on creeling; and is therefore not a conventional fishery compared to fisheries for other fin-fish species.

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<sup>1</sup> Davies, S (2016) A review of wrasse ecology and fisheries interaction.

<https://secure.toolkitfiles.co.uk/clients/15340/sitedata/Wrasse/A-review-of-wrasse-ecology.pdf>

- Ballan wrasse is the preferred species used by one company, and only smaller wrasse are taken; larger fish are prevented from entering creels by the size of the entrance. This protects (especially) breeding males.
- Goldsinny wrasse were said to mature at smaller sizes (compared to Ballan wrasse) so are not as prone to overexploitation.
- Salmon farmers throughout the industry in Scotland only buy wrasse from contracted and licensed wrasse fishermen. They are therefore able to control levels of exploitation of wrasse from the areas where wrasse are fished for.
- In Norway, higher catches of wrasse had been observed in protected areas compared to unprotected areas<sup>2</sup>; there was some discussion as to how this finding might be related to management requirements to protect wrasse populations and to sustain the wrasse fishery in Scotland.
- There are a lot of unknowns about the wrasse populations in Scotland and work is required to better understand the impact of catching on the wider population of wrasse and other wild fish.
- One problem is that reported landings of wrasse are not broken down into species, nor at the spatial scale required to understand management needs at the local level.
- It is important that any action taken going forward is based on best evidence, and is both pragmatic and proportionate.
- There is a recognition that Marine Scotland and the salmon farming sector would need to work together to collect the appropriate data to be able to assess the wrasse stocks.
- The designation of no-take zones is not considered to be the best route forward at this stage, as insufficient is known about the wrasse distribution through the year and their biology to be clear whether the zones proposed would be the most appropriate and whether they would work for the purpose intended.
- Some areas were considered to be almost unfishable due to exposure, so would (in any case) act as areas where wrasse would not be subject to creeling pressure. These areas would provide protection for some breeding wrasse.
- There was not support from everyone for the proposed network of voluntary protected areas for wrasse within the Wester Ross MPA. Instead there was discussion as to whether a series of un-fished study areas located in 'suitable areas' might help to inform stock status and subsequent management needs.
- Any study areas required would need to be situated appropriately and developed in collaboration with fisheries and industry, and monitored to determine any effects.
- Marine Scotland will consider how best to progress any future sustainability project and report back on outline, timing and likely costs.

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<sup>2</sup> Halvorsen, *et al* (2017)

[https://www.researchgate.net/publication/314262463\\_Impact\\_of\\_harvesting\\_cleaner\\_fish\\_for\\_salmonid\\_aquaculture\\_assessed\\_from\\_replicated\\_coastal\\_marine\\_protected\\_areas](https://www.researchgate.net/publication/314262463_Impact_of_harvesting_cleaner_fish_for_salmonid_aquaculture_assessed_from_replicated_coastal_marine_protected_areas)

- Given the current activity in the wrasse fishing sector and the potential for this escalating, it is important that data gathering and the studies required to improve knowledge and understanding of wrasse distribution, biology and fishing impacts are implemented and underway with some urgency.

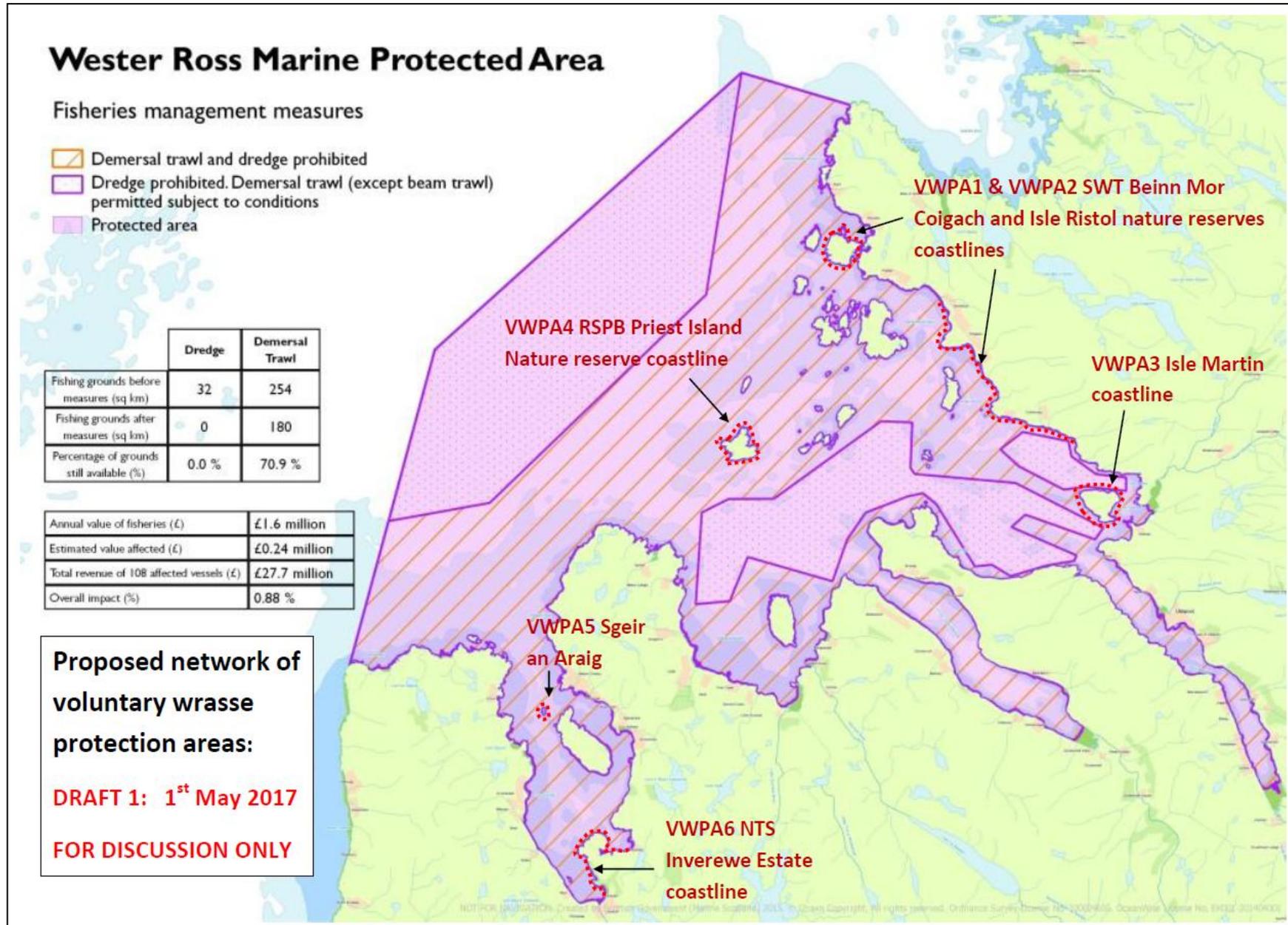
**Action points:**

- **There is a need to look in more detail at industry-wide catches of wrasse. SSPO and the Scottish Government will take this forward with Marine Scotland scientists, and Marine Scotland compliance.**
- **Further discussions between SG, Marine Scotland Science and the SSPO will take place regarding other measures that are needed to improve knowledge of wrasse fisheries and management requirements.**

Peter C thanked everyone for their interest and contribution, and thanked Marine Scotland for providing the venue with video conferencing facilities.

Peter Cunningham, 24<sup>th</sup> May 2017. [info@wrft.org.uk](mailto:info@wrft.org.uk)

Appendix 1: Map of proposed voluntary wrasse protection areas within the Wester Ross Marine Protected Area, circulated prior to meeting. [These were not agreed at the meeting]



## Appendix 2 Edited correspondences prior to meeting

From: Wester Ross Fisheries Trust [<mailto:info@wrft.org.uk>]

Sent: 14 April 2017 16:30

Subject: Proposed Wester Ross wrasse protection areas meeting 4th May Ullapool

Good afternoon everyone,

On Thursday next week I'll confirm a place and time for a meeting to discuss proposed voluntary wrasse protection areas within the Wester Ross MPA for the coming season.

At the meeting, I'd like to address the following:

- ② Briefly review what is known about the ecology, catches, and population status of each of the 5 wrasse species (Ballan, Corkwing, Goldsinny, Rockcook, Cuckoo) within the Wester Ross area.
- ② Discuss the need for measures to protect wild wrasse populations. If there are strong arguments for or against the need for additional measures, including spatial measures, then this would be a good time to present them.
- ② I'm currently of the view that spatial measures to safeguard wild wrasse populations and to support a sustainable wrasse fishery would be appropriate and are needed. If others agree, then the next stage would be to consider how these should be developed.
- ② The initial proposal was for 500m voluntary wrasse protection areas around Isle Martin, Coigach Coastline, one or more of Summer Isles, Inverewe Estate, and Priest island coastlines. So far I've heard various expressions of support; no-one has argued against. Do other people agree that such a network of small 'wrasse protection areas' is a sensible way forward? Do other people agree that a voluntary approach is the way to progress these?
- ② For the proposed network of voluntary wrasse protection areas to be successful, support from local salmon farm operators and wrasse fishermen would be required. What are the prospects of this?
- ② Sgeirr an Araig (to north of Isle Ewe) has also been suggested as a place where a protection area could help to safeguard breeding wrasse, and that 200m voluntary wrasse protection areas around coastlines may be adequate?
- ② Outcome: I envisage agreeing a map with proposed voluntary wrasse protection areas, to be published in local media, on-line, and displayed around the area with a request that commercial wrasse fishermen and anglers do not take wrasse from these areas over future months, with accompanying explanation and press release. The map and text would explain clearly that the proposed wrasse protection areas apply only to wrasse species and not to any other species or form of fishing whether commercial or recreational, and that the measures are voluntary in the hope that such an approach would be adequate. There would be a point of contact so that if anyone had any strong views for or against the initiative that they should be able to express these.

That is the main target for the meeting; we may also be able to discuss the need for future monitoring of wrasse catches at a more local level and for monitoring effectiveness of 'voluntary' measures.

Success will require active support from a wide range of local stakeholders, especially local wrasse fishermen and representatives of the salmon farming industry.

Anything else?

Happy Easter everyone.

Best wishes,

Peter Cunningham

From: Wester Ross Fisheries Trust [<mailto:info@wrft.org.uk>]

Sent: 11 April 2017 15:36

Hello everyone,

I've just had a interesting conversation with David Donnan and earlier today a message from Richard Greene who was concerned that prawn creelers might not be in favour of 'no-take zones' . . .

The initiative is not about proposing any restrictions on creeling for prawns or other shellfish or fishing for other species of fish: it's just about wrasse!

So to make it easier for people to understand, I suggest that 'voluntary wrasse protection areas' would be a better description for the proposed small areas where wrasse can breed without being targeted, than 'voluntary wrasse no-take zones'?

It's needs to be positive and non-threatening to anyone!

Let me know what you think?

Best wishes,

Peter Cunningham

From: Wester Ross Fisheries Trust [<mailto:info@wrft.org.uk>]

Sent: 24 March 2017 11:40

Good morning everyone,

To make further progress following various earlier correspondence and discussions, please find attached and below a proposal to designate a network of voluntary No-Take Zones for wild wrasse species within the Wester Ross Marine Protected Area.

The aim is to adopt a co-management approach to managing wild wrasse within the area. This requires gaining support from a range of businesses including fishers and fish farmers, organisations including NGOS with a remit to protect marine wildlife and local community groups and The Scottish Government, for practical measures to safeguard wild wrasse populations within the area.

I respect that this message is being sent to individuals representing groups with different objectives and agendas; however I think everyone will benefit from measures to safeguard populations of wild wrasse within the local area: so the challenge is to see whether it is possible to gain support from everyone within the area at least for safeguarding wild wrasse populations?

If you are interested in developing this fish conservation and fishery management initiative, please indicate your availability to attend a meeting possibly in Ullapool, Aultbea or Poolewe (please suggest preference).

Please give me a ring if you would like to discuss.

Best wishes,

Peter Cunningham

Proposal for a network of voluntary no-take zones for wild wrasse spp. within the Wester Ross Marine Protected Area

Peter Cunningham, Biologist, SWRFT, [info@wrft.org.uk](mailto:info@wrft.org.uk)

24<sup>th</sup> March 2017

Why wrasse?

Wild caught wrasse have been used successfully over the past two years to control parasitic sea lice on local salmon farms. Wester Ross Fisheries has achieved close to zero adult female parasitic lice per farmed fish using wild caught wrasse as cleaner fish without resorting to use of pesticides. This represents unprecedented success in the fight against on-farm sea louse infestation.

There are some signs that wild sea trout populations in surrounding waters are benefiting from reduced sea louse infestation pressure within the area, with reports of some larger sea trout in recent rod catches and higher abundance of trout fry recorded by WRFT juvenile fish survey teams in some trout nursery streams around the area in 2016; further monitoring is required.

So in addition to the need to protect wild wrasse populations *per se*, it is therefore also very much in the interests of wild salmon and sea trout fisheries interests within the area to ensure that the supply of cleaner fish from the local area to local salmon farms can be sustained.

When populations are healthy, wrasse are also amongst the most common and charismatic groups of fishes seen by snorkelers and divers within the area; and their depletion in local waters would be detrimental to efforts to promote recreational snorkelling and diving within the area; and also sustainable sea angling.

Some wrasse species are also likely to provide a 'cleaner' role for wild sea trout and other fish in the coastal seas around Wester Ross: another reason why it is important to ensure that wrasse populations remain healthy.

As a contribution to ongoing discussions to address the challenge of protecting populations of wild wrasse within the Wester Ross MPA and sustaining a viable fishery, this document proposes designation of some areas within the Wester Ross MPA as no-take zones [NTZs] for all wrasse species.

Proposed wrasse NTZs would initially be voluntary and their extent and location would be subject to agreement from as many people and organisations as possible, including all wrasse fishermen who live and work within the Wester Ross MPA and the organisations that represent them. An awareness-raising campaign is required.

The species that have been targeted by the salmon farming industry are: Ballan wrasse, Corkwing wrasse, Goldsinny wrasse, Rock Cook and Cuckoo wrasse. All are slow growing. All except Goldsinny wrasse are nest builders (however Goldsinny males also territorial so would benefit also). The aim of the NTZs will be to safeguard places where wrasse are able to breed without interference, thereby helping to safeguard populations of wild wrasse and supporting recruitment of juvenile wrasse into surrounding areas where fishing takes place.

Why now?

There are a number of anecdotal reports of diminishing wrasse catches from the area. The creel fishery for wild wrasse around Wester Ross is currently expanding to provide a supply of cleaner fish for salmon farms; demand is likely to exceed supply leading to higher prices and greater pressure on wild wrasse populations.

Although the salmon farming industry has invested heavily in producing cultured cleaner fish including lumpfish and wrasse, reports indicate that wild caught wrasse are particularly effective as cleaner fish and highly sought after. The value of wild caught wrasse has increased to the level that some fishermen are investing in new boats to fish for wrasse more widely.

There is no adequate regulation of fishing effort for wrasse or effective monitoring of wrasse populations at the local (sea loch by sea loch) level.

New measures therefore need to be put in place as a matter of some urgency to ensure that populations of wild of wrasse are not over exploited.

Where?

The Scottish Government and its agencies are currently working towards measures to safeguard wild wrasse populations. The aim of this document is to support their efforts, and to seek support from local businesses, other NGOs and members of the local community, including fishermen, for a network of no-take zones for wrasse spp. within the area, for the purpose of safeguarding breeding populations of wrasse. If successful, this could represent a cost-effective solution for our local area.

For the purposes of getting discussions underway, I propose that no-take zones for wrasse spp. should cover an area of 500m out from the shore around the following locations within the Wester Ross MPA. These areas have been chosen as they cover a range of inner and outer sea loch and coastline habitats likely to be occupied by a range of wrasse species; and because adjacent landowners have an active interest in wildlife conservation.

1. Loch Ewe: 500m no-take zone for wrasse spp. around NTS Inverewe property, with support from the National Trust for Scotland and Marine Harvest.
2. Loch Kanaird: 500m no-take zone for wrasse spp. around Isle Martin, with support from the Isle Martin Trust and Wester Ross Fisheries.
3. Coigach coastline: 500m no-take zone for wrasse spp. along the Coigach coastline, with support from the Scottish Wildlife Trust and Scottish Sea Farms and Wester Ross Fisheries.
4. Tanera Mor: 500m no-take zone for wrasse spp. supported by the residents of Tanera Mor and Scottish Sea Farms.
5. Isle Ristol: 500m no-take zone for wrasse spp. with support from SWT and Scottish Sea Farms.
6. Priest Island: 500m no-take zone for wrasse, with support from the RSPB and Scottish Sea Farms.

All zones should be discussed and agreed as far as reasonably possible by local wrasse fishermen; there may be better options and ideas as where no-take zones should be located for the purposes of safeguarding wrasse broodstock. Marine Scotland Scientists may be able to provide advice on the size of NTZs to be most effective and /or to propose additional complementary measures.

Proposed meeting to discuss the above and agree locations for voluntary wrasse NTZs

To find out how far different organisations and individuals are able to work together to support the development of a network of wrasse NTZs, a meeting is proposed. I'll be very interested in any other ideas, especially those based on information about wrasse populations within the local area which I am unaware of. As a fish biologist with remit to promote good management of wild fish populations; it is becoming clear to me that wrasse populations are likely to become severely depleted within parts of the area unless action is taken very soon.

I propose a meeting towards the end of April or in the first week of May to discuss this proposal. Please go to doodle poll to indicate whether or not you would like to attend?

I know everyone is busy; however no-one has been able to assure me that wrasse stocks will not be depleted to very low levels within the area without immediate action.

Future considerations

If voluntary measures are adequate to safeguard wild wrasse populations within the MPA, that would be the best outcome for all concerned.

A monitoring programme will be required to assess effectiveness; including more detailed recording of wrasse catches around the whole MPA; with some sampling of wild wrasse within proposed wrasse NTZs.

Local salmon farm companies and wrasse fishers supplying them, and NGOs with support from the Scottish Government and UHI SAMS may be well placed to achieve this. To what extent is it possible to work together?

I also envisage 'citizen science' opportunities for snorkelers and divers to participate with recording wild wrasse in their natural habitats to raise awareness and the development of student research projects within the area.

If voluntary measures in 2017 are clearly inadequate, other options for consideration possibly including Several Order legislation could provide alternative means of progressing?

*PDC 24/3/17*