

FINAL REPORT

ZA1760 Vessel Management Plan to Reduce Seabird Mortality

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Reporting Period

1st February 2011 to 31st October 2011

Project Summary

Assess production and fishing practices aboard 14 vessel types belonging to RFA member companies.

Identify all situations where interactions between fishing gear and seabirds may lead to injury or mortality.

Ensure that all the above situations are protected by mitigation devices and/or offal management procedures

Develop Bird Mitigation Plans (note use of BMP in favour of VMP) for each individual vessel type.

Ensure final adoption of 15 BMP's by companies and vessels.

Produce overview report.

Conservation impacts achieved

Significant decrease in seabird (particularly albatross) mortality during demersal trawling operations by protecting the trawl warps/cables during the net shooting procedure with bird scaring lines ('tori lines') as the trawl doors enter the water. Alternatively the cessation of offal discharge during the shooting procedure. Both methods were trialed and found to be feasible and acceptable to all involved.

The project has led to the acceptance of improved permit conditions (Demersal Trawl Fishery) regarding the protection of seabirds.

The adoption of the BMP's and the profile this project has seen improved compliance to seabird relevant permit conditions.

Project Objectives

1. Provide an overview of vessel/vessel groups (establish vessel layout and operations for suitability to offal management)
2. Develop draft Vessel Management Plans ensure input is received from skipper, company representative, WWF and BirdLife
3. Present final VMP's to companies (a WWF and BirdLife representative to be included in meetings)
4. Final adoption of VMP by company and vessel

Outputs:

1. 15 Vessel Management Plans following the template provided by New Zealand
2. An overview report (including a summary of findings and recommendations)

Changes to objectives

The concept of offal management by the construction of holding tanks aboard all vessels in the fleet was muted as a plausible when this project was originally proposed. It however became obvious at the outset that there were considerable hurdles to overcome before such concept could be implemented. Limited space, safety issues, age of fleet and cost were factors opposing this direction for the BMP.

A recent scientific study of offal management utilizing holding tanks in New Zealand was also less than convincing: **'Reducing interactions between seabirds and trawl fisheries: Responses to foraging patches provided by fish waste batches'** in press 2010

Early in the project it was seen that bird scaring line deployment during gear shooting or the cessation of offal discharge by holding production for up to a maximum of ten minutes was sufficient to prevent any significant bird/warp interactions during that period.

It is however suggested that further study utilizing this project and a Marine Engineer be undertaken to investigate the concept of holding tanks on 'new builds'.

Project Narrative

At the outset meetings were held with the 4 RFA companies where 14 vessels representing the different vessel classes were identified. The relevant members of management to be involved and accompany the contractor to sea were met and contact details established.

At sea assessments got under at the beginning of February 2011 and the contractor made his first report-back at the RFA Meeting on the 10th April. At this stage vessels were easy to access and the contractor was achieving one assessment per week with 6 completed before the meeting. At the meeting the RFA Seabird Working Group was established consisting of WWF and BirdLife members, the contractor and representatives of the four RFA companies. Five meetings of this working group (April, May, June, July and August) served as a platform for report-back, tabling of proposed permit condition changes, tabling the vessel assessment format and BMP format amongst other issues.

The Seabird Working Group was in agreement that trawl by trawl information to be recorded by onboard vessel management could be better managed if it were recorded in the MCM Logbook. To this end the Rob Cooper (Demersal Data Manager at MCM) was approached by the contractor, his response was favorable and it is expected that the next printing of the Logbooks will include bird scaring line deployment detail and bird mortality records.

It became obvious during April and May once most of the fresh fish fleet had been assessed that completion of assessment at the rate which had been achieved would not be possible, WWF was informed that the project would not be completed as originally envisaged.

The following factors proved difficult although not insurmountable; freezer vessel do trips of up to 45 days resulting in few sailing day opportunities (sailing day proved in retrospect to be the most convenient time for embarking). Continuous changes to docking and sailing dates, availability of accompanying company management, weather and ships compliment (specific to smaller vessels) also played a part in slowing the process.

All 14 vessel types were assessed by end September 2011.

Agreement was reached with each company regarding BMP's which were all in place by 15th November 2011.

Constraints affecting progress

Availability of vessels resulted the project period being extended as described above.

Initially it was thought that BMP's would be produced directly after each assessment. As a result of new information being gleaned during each new assessment it was decided to finalize the BMP's into the agreed format at the end of the project.

Equipment Status

The contractor utilized his own optical, photographic and computer equipment during the project. No damage due to accident or wear was experienced.

Lessons learnt and recommendations

Compliance to seabird related regulations (i.e. the flying of tori lines) by RFA member vessels is high. It was however concerning that only 3 out of 15 vessels assessed were flying their bird scaring lines correctly. The most commonly encountered problem was the position of the first streamer which was often at or behind the warp/water interface. It is recommended that there should be at least 2 streamers ahead of the warp/water interface. The new permit conditions stipulate that the first streamer should be 2 meters from the vessel stern and that the distance between streamers is shortened to 2m.

It is also recommended that all observers aboard demersal trawlers are schooled in bird scaring line deployment and have the wherewithal to record compliance and the correct setting positions.

All 14 vessels assessed showed the capability of deploying their tori lines when the trawl doors enter the water and before shooting commences. There were 2 instances of fouling tori lines with the trawl warps. Both instances were a result of carelessness. At least 4 vessels had either experimentally or routinely deployed their tori lines before shooting prior to the intervention of this project.

An important highlight of this project was the fact that eleven different shore-based managers accompanied the project. The benefit of this intervention was immediately evident at the Seabird Working Group meetings where all four RFA company reps had been to sea and had firsthand experience of the problems. It is expected that this will serve to improve the interaction of management with their vessels in terms of ensuring that two sets of regulation bird scaring lines are onboard before each sailing. More than

40% of the vessels assessed were short of bird scaring lines or were working with damaged or poorly repaired lines.

It is noted that vessels whose officers/crew had been exposed to WWF training had a good grasp of the bird problem and were easier to work with and were generally convinced of the benefits of mitigation. Seventy per cent of vessels assessed had been exposed to this training. It is hoped that this training continues.

On the east coast a number of inshore trawlers were noted fishing in the same area as the offshore fleet albeit slightly shallower. There were large numbers of birds in the general area and there should be research into bird interactions in that fishery.

Experimental 'Rory lines' were encountered on two vessels. These lines form a curtain across the flow of offal resulting in disturbance of feeding birds that are likely to drift into the path of the oncoming warps. Although birds returned to the offal stream behind these lines it is felt that they might be highly beneficial and that further research should be undertaken.

The mortality of Cape Gannets is a major issue as this species is listed as vulnerable. Although large flocks of gannet frequently attended the vessels during this assessment enmeshed gannets were not encountered. Discussions with skippers indicate that gannets are enmeshed during certain conditions but that most are released alive. In the case of the Horse Mackerel trawler it is noted that gannets may be a problem during 2 months of summer when the vessel fishes during daylight hours.

All vessels were interrogated about their experiences with new/sticky warps. During the project period at least 3 RFA vessels experienced bird mortality with new warps. One skipper described a situation where 4 albatrosses were pulled through the warp blocks on one trawl, this was a bitumen based wire protection. Apparently albatrosses adhered to the warps for two weeks. The company has undertaken not to use bitumen based warp into the future. The contractor sailed with new warps on 2 occasions, both situations were non-threatening to birds and birds coming in contact did not adhere to the warps. One vessel had a self lubricating mechanism aboard, this system was also deemed non-threatening. A number of birds (albatross and gannet) have been seen with black 'grease-stripes' in the past 2 months.

It is noted that factory vessels with fish meal plants do discharge offal in 3 different situations; a) factory deck water with some cuttings and waste is constantly pumped overboard, b) on fillet producing vessels, skins are generally discharged overboard and c) there are situations when the fish meal plant is full or not operational when all offal goes overboard.

It is important that skippers and crew are aware of the species that are at risk and potentially brought onboard. To this end it is suggested that existing identification sheets produced by WWF/BirdLife are modified to cover the ten species at major risk.

There is generally poor compliance on non-RFA vessels particularly on the southern Agulhas Bank and on the east grounds where vessels are not constantly visited by the tuna fishery, sports fisherman and bird watchers. It seems good sense that the whole industry is subjected to this assessment and the BMP.

The BMP prescribes that an audit takes place on each vessel type every two years. It was noted that during this assessment a great deal of interchange between vessels took place daily on the vessels radio. Such discussion raises the profile of the bird issue and is likely to encourage compliance and innovation. If there is regular spacing between audits the issues will be kept fresh in people's minds.

Conclusion

This project should result in an immediate reduction in seabird mortality as a result of warp strikes in the demersal trawl fishery. The implementation of the BMP will ensure that warps are protected during the shooting phase of the fishing operation. Prior to this project warps were unprotected during shooting and Birdlife observations showed high levels of mortality during this period.

The assessment has led to Permit Condition changes which will see a more effective bird scaring line design put in place. The BMP will raise the profile of bird mitigation and improve compliance with regulations.

Importantly company management now has firsthand knowledge and experience of the problems and their solutions.

It is hoped that SADSTIA and eventually DAFF will embrace the BMP concept which will raise the profile of the bird problem and improve compliance to the related permit conditions across the whole trawl fleet.