



COMMONWEALTH OF AUSTRALIA

JOINT STANDING COMMITTEE ON TREATIES

**Reference: Convention on the Conservation of Migratory Species of Wild Animals
(the Bonn convention)**

CANBERRA

Monday, 23 June 1997

OFFICIAL HANSARD REPORT

CANBERRA

JOINT STANDING COMMITTEE ON TREATIES

Members:

Mr Taylor (Chairman)

Mr McClelland (Deputy Chairman)

Senator Abetz	Mr Adams
Senator Bourne	Mr Bartlett
Senator Coonan	Mr Laurie Ferguson
Senator Cooney	Mr Hardgrave
Senator Murphy	Mr Tony Smith
Senator Neal	Mr Truss
Senator O'Chee	Mr Tuckey

For inquiry into and report on:

Convention on the Conservation of Migratory Species of Wild Animals (the Bonn convention).

WITNESSES

BAKER, Mr Geoffrey Barrington, Assistant Director, Wildlife Management Section, Wildlife Management Branch, Biodiversity Group, Environment Australia, GPO Box 636, Canberra, Australian Capital Territory 2601	3
BATTAM, Mr Henry, Assistant Secretary, Southern Oceans Seabird Study Association, PO Box 142, Unanderra, New South Wales 2526	21
CASSELLS, Mr Peter Thomas, Assistant Director, Fisheries and Aquaculture Branch, Department of Primary Industries and Energy, GPO Box 858, Canberra City, Australian Capital Territory 2601	3
FOSTER, Mr William John, Executive Officer, Humane Society International, PO Box 439, Avalon, New South Wales 2107	21
GLADMAN, Mr Darren John, Campaigner, Greenpeace, GPO Box 3307, Sydney, New South Wales 2001	21
GRIFFITHS, Mr David Colin, Director of National Parks and Wildlife, Biodiversity Group, Environment Australia, GPO Box 636, Canberra, Australian Capital Territory 2601	3
HERMES, Mr Neil, Acting Director, International Relations, Fisheries and Aquaculture Branch, Department of Primary Industries and Energy, GPO Box 858, Canberra City, Australian Capital Territory 2601	3
NICHOLLS, Mr David George, Honorary Research Fellow, Albatross Research, La Trobe University, c/- Peninsula Institute of TAFE, Bonbeach Campus, Breeze Street, Carrum, Victoria 3197	21
RAYNS, Dr Nicholas David, Senior Fisheries Manager, Tuna and Billfish, Australian Fisheries Management Authority, 28 National Circuit, Forrest, Australian Capital Territory 2603	3
SCOTNEY, Mr Brian Thomas, Project Officer, Wildlife Management Section, Wildlife Management Branch, Biodiversity Group, Environment Australia, GPO Box 636, Canberra, Australian Capital Territory 2601 ...	3
SMITH, Mr Lindsay Edward, Vice-President, Southern Oceans Seabird Study Association Inc., PO Box 142, Unanderra, New South Wales 2526	21
THIELE, Ms Deborah, Project Officer, Marine Wildlife, Biodiversity Group, Environment Australia, GPO Box 636, Canberra, Australian Capital Territory 2601	3

**WEAVER, Ms Karen Elizabeth, Manager, Environment Section, Australian
Fisheries Management Authority, PO Box 7051, Canberra Mail Centre,
Australian Capital Territory 2610 3**

JOINT STANDING COMMITTEE ON TREATIES

Convention on the Conservation of Migratory Species of Wild Animals (the Bonn convention)

CANBERRA

Monday, 23 June 1997

Present

Mr McClelland (Acting Chairman)

Senator Abetz

Mr Adams

Senator Murphy

Mr Bartlett

Mr Laurie Ferguson

Mr Hardgrave

Mr Tony Smith

Mr Truss

The committee met at 9.08 a.m.

Mr McClelland took the chair.

ACTING CHAIRMAN—I declare this morning's hearing open. It is dealing with amendments to the Convention on the Conservation of Migratory Species of Wild Animals, also known as the Bonn convention. This is the first of two scheduled hearings in the amendments proposed for appendices 1 and 2. The other will be held in Hobart on Monday 4 August 1997.

The *Weekend Australian* advertised this inquiry and called for comments and submissions on these amendments. We will be interested to see how many actual contributions we get, and how many requests for additional information, but we expect we will have feedback. The revised national interest and analysis tabled on the 18 June 1997 sets out the changes proposed: one albatross species added to appendix 1, and 10 albatross species and two dolphin species added to appendix 2. The witnesses we will hear today represent government departments and agencies and a range of other organisations and individuals with an interest in the conservation of migratory wild animals.

[9.11 a.m.]

BAKER, Mr Geoffrey Barrington, Assistant Director, Wildlife Management Section, Wildlife Management Branch, Biodiversity Group, Environment Australia, GPO Box 636, Canberra, Australian Capital Territory 2601

GRIFFITHS, Mr David Colin, Director of National Parks and Wildlife, Biodiversity Group, Environment Australia, GPO Box 636, Canberra, Australian Capital Territory 2601

SCOTNEY, Mr Brian Thomas, Project Officer, Wildlife Management Section, Wildlife Management Branch, Biodiversity Group, Environment Australia, GPO Box 636, Canberra, Australian Capital Territory 2601

THIELE, Ms Deborah, Project Officer, Marine Wildlife, Biodiversity Group, Environment Australia, GPO Box 636, Canberra, Australian Capital Territory 2601

CASSELLS, Mr Peter Thomas, Assistant Director, Fisheries and Aquaculture Branch, Department of Primary Industries and Energy, GPO Box 858, Canberra City, Australian Capital Territory 2601

HERMES, Mr Neil, Acting Director, International Relations, Fisheries and Aquaculture Branch, Department of Primary Industries and Energy, GPO Box 858, Canberra City, Australian Capital Territory 2601

RAYNS, Dr Nicholas David, Senior Fisheries Manager, Tuna and Billfish, Australian Fisheries Management Authority, 28 National Circuit, Forrest, Australian Capital Territory 2603

WEAVER, Ms Karen Elizabeth, Manager, Environment Section, Australian Fisheries Management Authority, PO Box 7051, Canberra Mail Centre, Australian Capital Territory 2610

ACTING CHAIRMAN—On behalf of the committee I welcome representatives of the Department of the Environment, the Department of Primary Industries and Energy and the Australian Fisheries Management Authority.

Resolved (on motion by Mr Hardgrave):

That this committee authorises publication of submissions 9, 3A and 8A from the Department of the Environment.

ACTING CHAIRMAN—The respective submissions have been published by the committee. Are there any amendments to any of the submissions that have been made? I

call on Mr Griffiths to make an opening statement before any questions.

Mr Griffiths—Thank you, Mr Chairman. We are representing three Commonwealth government agencies and I would like to make an opening statement on behalf of the three agencies. In doing so, I hope that I will be able to provide a context for the treaty action which this committee has under consideration. It might also be helpful if I elaborate on several of those issues which we think are relevant to your inquiry.

The convention was concluded in 1979 and Australia became a party in 1991. The convention is essentially a framework agreement and one of its most significant features is that it provides a mechanism for countries which share migratory species to develop specific conservation agreements for those species.

At the fifth conference of the parties to the convention which was held in Geneva in April of this year, Australia successfully proposed a listing of 10 species of albatrosses for appendix 2 and one species for appendix 1. What that means with respect to each appendix is outlined in the national interest analysis which was tabled last week under the obligations section. Suffice it to say that we do not need to elaborate on the implications of that listing.

The species which Australia proposed constitute all of the Southern Hemisphere albatross species and, in addition to these, the fifth conference accepted a Netherlands proposal to add two Northern Hemisphere species to appendix 2. Since one other Northern Hemisphere species was added to appendix 1 by the fourth conference, all of the world's 14 albatross species are now listed in the appendices of the convention.

As a group, albatrosses are the focus of attention around the world. The committee may be aware that the USA recently adopted regulations aimed at reducing albatross by-catch off Alaska and elsewhere. The ornithological non-government organisation, Birdlife International, recently established a global seabird conservation project, a major focus of this being albatross by-catch. With financial help from the Royal Society for the Protection of Birds, a position of coordinator for the project has been established and located at Capetown University in South Africa. In addition, there has been a substantial revision of albatross taxonomy which will be published in the literature in the near future. While this revision has no impact on listing albatrosses under the convention, it indicates that albatrosses continue to be the subject of active scientific interest.

Australia has for some years been addressing ways of reducing the by-catch of seabirds, particularly of albatrosses. Perhaps the most significant achievement in this area has been our success in developing a cooperative relationship with the tuna fishing industry. Both domestic and Japanese long-line fleets now accept that a reduction in by-catch is to their benefit through increased catch volume and enhanced public image. These fleets have been cooperating with data collection, development, trialling and the adoption of mitigation measures.

As a result, the situation of albatrosses in Australia's EEZ is improving. Australia has led the way on this issue and, in our judgment, no other country has so effectively developed positive cooperative relationships between the fishing industry, the research community and regulatory agencies. As a result, Australia is well placed to take a leading role in the development of an agreement for conservation of Southern Hemisphere albatrosses.

The Valdivia nations have expressed their strong support, both for the listing of Southern Hemisphere albatrosses under the convention and for Australia to make the running in developing a regional agreement for their conservation. We feel that this represents a very real opportunity to do something significant for the global conservation of albatrosses.

I would like to make the point that regional agreements under the convention are open to everyone, to all comers, not just to countries which are parties to the convention nor just to countries which share the migratory species in question. This means that an agreement on albatrosses could potentially include the Valdivia nations, Japan, the United States or any nation whose vessels use the high seas of the Southern Hemisphere.

I would now like to turn to the listing of the two species of small cetaceans which occur in Australian waters: the spectacled porpoise and the dusky dolphin. These species were successfully proposed for listing by the governments of Argentina and Chile, respectively. Regrettably, the listing of these two species was overlooked by us in preparing the national interest analysis and, as a result, we had tabled a revised national interest analysis last week on 18 June.

These two cetaceans are uncommon in Australian waters. The spectacled porpoise may be the world's rarest species of cetacean. Certainly, little is known about the habits of either species and this lack of knowledge is perhaps the greatest threat facing them. Their listing is, we believe, uncontroversial and a positive measure. In keeping with Australia's very strong record in cetacean conservation, Australia supported the listing of these species under the convention.

I would like to offer one point of clarification on the NIA tabled last week. Habitat degradation, and direct and indirect take in fisheries are cited in the NIA as threats to small cetaceans. This is certainly true in the global context. I would like to emphasise, however, that there are no indications that these are issues for either species in Australian waters. There is no commercial take of any cetaceans in Australian waters. There have been no reported occurrences of the spectacled porpoise or the dusky dolphin occurring as a by-catch in Australian waters and there is no suggestion that the species' habitat is being degraded anywhere in Australian waters.

In closing, I should mention that my colleagues from AFMA have only recently been made aware of the listings of the cetaceans. They have brought to my attention that

the views of the fishing industry were not canvassed prior to the decision to support the listings. To redress this matter, the authority has now written to relevant management advisory committees seeking industry views. I understand that a response is expected from the industry within two weeks.

ACTING CHAIRMAN—Thank you, Mr Griffiths. On that final point, when that response from industry comes in would you mind providing the committee with that feedback that you receive?

Mr Griffiths—It will be AFMA that does, but I am sure they would be more than happy to do that.

ACTING CHAIRMAN—With respect to the albatross at least, you mentioned that fisheries by-catch is an issue; indeed, the committee has some prior knowledge of this because of the inquiry into the southern bluefin tuna treaty last year. Is there an issue regarding habit degradation for the albatross in Australia?

Mr Griffiths—I might ask one of my colleagues to respond to that, Mr Chairman.

Mr Baker—Probably not, is the simple answer. There are not many species that do breed within Australian waters, and with those that do their habitats are fairly secure.

ACTING CHAIRMAN—So the main risk, at least in the Southern Hemisphere, is the by-catch issue?

Mr Baker—The main risk is the by-catch issue. With the Macquarie Island wandering albatross, rabbits are recorded on the island, but that does not appear to be degrading the habitat substantially.

Mr TONY SMITH—You said that the situation of albatrosses is improving in Australia. What did you actually mean by that and what is the evidence on which you based the statement?

Mr Baker—The catch rates recorded on the observer program seem to indicate that the numbers of albatrosses being caught are dropping. They are still not at a level that we are totally satisfied with, but—

Mr TONY SMITH—That could mean, of course, that the numbers are down in any event.

Mr Baker—The other point to note is that the number of hooks being currently set within the AFZ has substantially decreased since the estimate of by-catch prepared by Nigel Brothers, which was 44,000. I think that was back in 1988 and the number of hooks set has diminished substantially since then. That is the basis for us making that statement.

Also, mitigation methods have been employed throughout the AFZ. Tori poles are mandatory, and that has no doubt had some impact on reducing the by-catch.

Mr TONY SMITH—Where do you get the catch rates being down—have you got a table there?

Mr Baker—There have been some published papers which have looked at the data provided from the AFMA observer program which indicate that catch rates have declined.

Mr TONY SMITH—Where would we find them?

Mr Baker—Klaer and Polacheck—if you have not got a copy of that, we can certainly ensure you get that. There was also a paper published, which I saw last week in *Emu*, also by Klaer and Polacheck, which looks at catch rates of albatrosses. I can get a copy of that to you as well.

Mr HARDGRAVE—Which countries and regions does the inclusion of these extra species impact on, because you are suggesting that there is not that great an impact directly on Australia?

Mr Griffiths—Are you talking about albatrosses or cetaceans?

Mr HARDGRAVE—Both. If it is not in Australia, where is the impact?

Mr Griffiths—Perhaps we will deal with the albatrosses first and then the cetaceans, because we have different people to speak on different species.

Mr Baker—There are a number of fisheries operating within the southern oceans that are impacting upon albatrosses. There are fisheries off South America for *Disstostichus*. We do not have a very good handle on the level of by-catch there, but certainly there have been Australian observers on those boats and they have seen substantial numbers of albatrosses taken. Fisheries in New Zealand have a problem with by-catch. Australian fisheries have a by-catch problem. Certainly in those areas it is quite a problem. I am not sure about any other fisheries.

Dr Rayns—Perhaps I can assist there. The issue of albatross by-catch is a problem round the southern oceans, in terms of all long-line fisheries. There are a number of high seas fleets involved, including those from Taiwan and Korea, which also fish southern latitudes, for example, in the Indian Ocean.

The issue is one for home states in terms of their own waters and also for the international community in terms of distant water fishing fleets. It occurs right around the polar region, mainly fishing between latitudes about 30 and 50 degrees south. It is a very broad issue for all those nations.

Mr HARDGRAVE—We have all been through an earlier inquiry which touched on the question of the albatross by-catch in connection with tuna long-line fishing. Certainly, it is a very unsatisfactory situation. To advance us a little further, if we are signatories to these additions to the convention, does that then send a signal to our long-line fishing partners—Japan, Taiwan, Korea—that they should go and fish somewhere else? Is everyone else going to support these additional listings?

Mr Baker—I think Japan understands that there is a substantial problem with by-catch. At a recent meeting of the Ecologically Related Species Working Group to CCSBT, Japan advised that they were going to make tori poles mandatory on all their vessels fishing the high seas as from 1 August. There is no question that they do acknowledge there is a problem there.

Mr HARDGRAVE—Is there anybody here who dissents from the notion that these initial species should be included? Obviously not.

Mr ADAMS—I was pleased to hear what you said about the Japanese. You feel that they now acknowledge there is a problem. In the evidence we received on the tuna inquiry, there was not a feeling that there was a concern by Japanese fishermen for the albatross or any other species. Could you give us some evidence that there is a change in attitude towards this by-catch by any other international players in the Southern Ocean, or is it just limited to Japan randomly?

Mr Baker—Taiwan, for instance, is not a member of the CCSBT and I am not aware of their attitudes to it. If they are tuna fishing, they must be catching albatross, but we have no idea of how many. I do not understand whether they are really concerned about it or not. The CCAMLR countries certainly are concerned about albatross by-catch. They have a working group that addresses that particular issue. There are 22 countries that are party to CCAMLR.

Mr ADAMS—And are the tori poles mandatory on the Japanese vessels now?

Mr Baker—From 1 August they will be, and they have been mandatory within the AFZ since 1993.

Ms Weaver—I think it was August 1993.

Mr ADAMS—Is that a legal obligation by their fishermen? Is it accepted by their fishermen that they will do that?

Dr Rayns—It is actually an obligation under Australian law that, if Japanese are operating in the Australian zone, they must use tori poles.

Mr ADAMS—Yes, but what about outside that on the high seas?

Dr Rayns—On the high seas, Japan has introduced its domestic legislation to apply to high seas vessels.

Mr ADAMS—So have they a mandate for them?

Dr Rayns—Yes.

Mr Hermes—You were talking about the other nations. One of the particular advantages of having these conditions within the CCSBT is that, if we do get Taiwan working with that commission—and South Korea and Indonesia being party to that commission—we then by that mechanism get extra pressure on those countries that they become obliged to act by the commission. That is how the process would then expand, by Australia's influence, to those other countries. It is by Australia's pressing at these commissions that we have been able to get these additional protections in place.

Mr ADAMS—You say there are fewer birds being taken under our observation method. Is that because there are fewer birds?

Dr Rayns—I could add to what Mr Baker said earlier. One thing that is happening in the Australian zone is that over several years there has been a considerable shift in the fishing effort to waters north of 30 degrees south, out of the area where albatross and a lot of other seabirds are caught, which has certainly assisted this process. That is partly because, for instance, this year we have halved the amount of SBT that Japan can take around Tasmania in the zone. That is going to reduce effort around Tasmania, which is a key area for albatross.

Also, generally speaking, with the southern bluefin tuna fleet moving to purse seine fishing rather than long-lining for the tuna farms, it has meant again a decrease in long-lining off South Australia. Also, we regulated about 12 or 18 months ago to exclude Japan from 35 degrees south of Western Australia, which was another area of interaction with albatross. All those factors have, firstly, moved effort north and, secondly, reduced the interaction in the AFZ.

Senator MURPHY—Could you tell me, with regard to Taiwan, how you expect to get it to become a member of the treaty? Does that pose any diplomatic problems with the Taiwan-China relationship?

Mr Griffiths—That probably ought to be addressed to Foreign Affairs, I guess. I do not feel competent to address that.

Senator MURPHY—I would have expected you to know if you are endeavouring to address this problem. I would have expected you to know if there is a diplomatic problem with a country becoming a member of the treaty. How do you get to negotiate with them as a government? Mr Baker indicated that you are seeking to have them

participate within the convention. I would have thought you would know what the views of other countries were, what the Taiwanese view was and what the Chinese view was concerning Taiwan becoming a member. Is there a diplomatic problem?

Mr Hermes—There are two issues here. One is the Bonn Convention and the other is the CCSBT. It was mentioned that we were encouraging them to participate with the commission, which is the southern bluefin tuna commission. That is where we actually have regulations to put into place tori poles, et cetera.

There has been extensive discussion with the Taiwanese over the last couple of years to look at mechanisms for them to work cooperatively with the commission and to give them recognition for doing that. It would not be possible for them to become full members of the commission because of Australia's position, and because of Japan and New Zealand's position concerning Taiwan. All the discussions have been on the basis of cooperation with the commission and the Taiwanese have expressed keenness to actually do that. So there are mechanisms that are being thoroughly looked at to ensure that we get the maximum benefit from the Taiwanese effort.

Senator MURPHY—Is there any indication from them at the moment that they may compulsorily introduce the use of tori poles for long-line fishing?

Mr Hermes—The tori pole issue has not come up, but the Taiwanese have already indicated that they are prepared to work with and abide by other decisions of the commission despite the fact that they are not members of the commission. We would expect that we would be able to encourage them to do similar things with tori poles and other mitigation methods.

Senator MURPHY—What about the other countries? Just before we leave the Taiwanese issue, and with the tori poles, what does research show in terms of the by-catch reduction?

Mr Baker—It is about 60 per cent, if a tori pole is set correctly.

Senator MURPHY—So there is a 60 per cent reduction.

Mr Baker—In by-catch, if it is set correctly. That is the big issue. It has got to be used and it has got to be set correctly. I notice in one of the Greenpeace submissions where they had an observer looking at boats operating in New Zealand, Greenpeace said the boats did not appear to be using their tori poles. A tori line must be set over the area of where the baits are being thrown and, of course, they have got to be used.

Mr HARDGRAVE—I just wanted to follow up on Senator Murphy's questions with regard to Taiwan. Taiwan and the People's Republic of China are about to jointly enter the World Trade Organisation. Does that provide you with some leverage, if indeed

you need it?

Mr Hermes—Generally, there is a keenness to cooperate all round. The fact that the Taiwanese want to be part of these arrangements and that they are already abiding by some of the conditions set by the commission is an extremely encouraging sign. It really is just a question of finding the technical mechanisms to enable us to cooperate. There are mechanical problems. For example, when we meet in Japan, the Taiwanese are not permitted to be in the room. There are things that we have to arrange. We have to hire different halls, for example, to enable the mechanism to work.

Mr HARDGRAVE—So to sum up what you are saying, the Taiwanese are ready to be good international citizens on this; it is just the diplomacy mechanisms which are a problem.

Mr Hermes—The Taiwanese regard their international fishing effort as an opportunity to show themselves as good international citizens, so they are keen to find the mechanisms, as are we.

Senator ABETZ—How many countries have signed up to this convention?

Mr Scotney—To the Bonn convention, 49 currently. At the last conference of parties, several others were expressing an interest in joining.

Senator ABETZ—Are there any notable absences from that membership list—those countries that would have a lot of migratory species?

Mr Scotney—I suppose the most notable exception would be the United States, which is not a member of the CMS convention. In the context of albatrosses, the USA and Japan would be the two notable absences.

Senator ABETZ—Under who's auspices was this convention developed? Is it a UN convention?

Mr Scotney—Yes, it is a UN convention. Another country I might mention which is not a member of the Bonn convention and which is a very important player in the albatross issue is New Zealand, but it is very positively engaged in the whole process.

Senator ABETZ—What will Australia need to do differently if it agrees to the amendments to those two appendices?

Mr Scotney—In relation to albatrosses?

Senator ABETZ—Yes, and for dolphins. Is there anything we will need to do differently on the domestic front?

Mr Baker—I think the process that we have in hand at the moment—this is the development of a threat abatement plan—is hoping to establish a best practice fishing management regime on the domestic scene. Through the convention, of course, we are proposing to develop a regional agreement in which Australia will take a lead role. If you have a best practice example that you can actually show to the rest of the world as, ‘This is what we are doing in our country; this is what we think you should be doing,’ I think you have a pretty good chance of selling that idea.

Senator ABETZ—But what does it mean in practical terms? Does it mean that some of our fishermen will have to change their practices substantially? If so, how will that impact on their income or on regional communities that might rely on the support of particular fishermen?

Dr Rayns—Basically, the fishing industry generally supported the nomination. They are aware that they may have to change some of their practices. They are aware of two things which will impact on them. One is the adoption of mitigation measures. They have already taken that on board with tori poles. They are aware that issues like night setting, bait throwers and so forth are probably the next steps in that process. Approximately one-third of our long-line fleet already night set, so they are moving in that direction anyway, and over time will go further down that track.

I think the other major issue for the fishing industry in terms of costs and impacts would be the likely adoption of some form of domestic observer program to monitor what is happening on domestic vessels as we do on the foreign fleet. AFMA has just commenced negotiations with the industry to look at the costs of that sort of program and how it might be established, being aware that the threat abatement plan is underway and it is very likely to come out with that sort of recommendation.

The industry is fully engaged in the process and aware of the issues that are before it, and we are working with them to overcome those.

Senator ABETZ—When you tell us that the fishing industry is fully engaged in the process, which groups did you have discussions with?

Dr Rayns—AFMA works through the management advisory committees, plus major industry groups, such as the Australian Tuna Boat Owners Association and also the East Coast Tuna Boat Owners Association, which cover most of the long-line fleets off the eastern and southern coasts.

Senator ABETZ—And they were all in agreement?

Dr Rayns—With the nominations?

Senator ABETZ—Yes.

Dr Rayns—Yes, indeed. Their only concern, as appears in one of the bits of text before you, is about costs in terms of observers.

Senator ABETZ—Has that been fully teased out as yet? If the species are nominated and put into the appendix, does that mean that we then need to have these observers?

Dr Rayns—That is where our threat abatement plan comes in. It will set up the requirements as to what the industry needs to comply with, or work towards. We have industry involvement and a threat abatement plan team, so that they are kept fully engaged in what is happening. They are willing to work with the government to overcome the issues of albatross by-catch. They realise very strongly that it is an issue that, firstly, they do not want to happen because it is bad publicity for them and, secondly, it has been clearly shown now that good mitigation measures increase the number of baits going into the sea and, in fact, can increase their catch rates. That is why the Japanese fishing on the high seas realise that things like tori poles are just a necessary part of fishing. They are not an encumbrance any more. They help the operation economically.

Senator ABETZ—Australia nominated the albatross for the appendix. Is that right?

Dr Rayns—Yes.

Senator ABETZ—Why did we nominate the albatross?

Mr Scotney—With global citizenship in mind, I suspect, we perceive that there is a problem. It is a useful point to make that the processes that are currently under way in terms of developing mitigation measures, are not driven by the CMS listing. It is rather the reverse. These are processes that are in place. They are going on in a domestic context, meeting domestic obligations and, we believe, it is a logical extension to try and carry that into the international forum.

Senator ABETZ—Good on you. I do not have any criticism of that. Why not the dolphins? Why did we leave it to the Argentines to nominate them?

Ms Thiele—There is not a management problem with fisheries in those two species of dolphins. There have not been very many sightings of either species, and there is no evidence of interaction with fisheries. The real problem with interaction with fisheries is off South America and that is why Argentina and Chile put the proposal forward, and we supported it.

Senator ABETZ—Do these dolphins come over to Australian waters?

Ms Thiele—Yes, they do, but fairly rarely. They are probably on the continental

shelf, but people do not see them very often. In fact, the spectacled porpoise was found stranded only this year.

Senator ABETZ—Is it because of fishing practices in Australia that they are not seen here very much, or is it that they just do not tend to come over to Australia?

Ms Thiele—They were not seen very often even in the 1900s, when they were seen off other countries, probably because there was not much activity off Australia. They are a cold temperate water species, so they tend to come up when there are cold currents. We see them more often then, but still rarely. Whereas there are populations that live off South America and South Africa.

Senator ABETZ—Will our Australian fishing industry have to change any of its practices for the dolphins?

Ms Thiele—No, not while there is no information.

Mr LAURIE FERGUSON—Obviously, we have not had access to this article that you cite with regard to statistical evidence on improvement. In the previous inquiry on tuna, we had evidence from fishing groups that they considered that the degree of interest in this field by the Japanese was more related to the presence of observers than to altruism. Could you just give us some background and remind us of the observer practices, such as the prevalence of observers and the access to foreign boats, et cetera? How much of the field is really covered?

Dr Rayns—It varies very slightly from year to year but, in general, we look for a minimum 10 per cent coverage off the east and west coasts and usually achieve about 15 per cent coverage of all trips—this is for the Japanese fleet. With regard to the Japanese SBT fleet operating off Tasmania, this year we look like covering at least 40 to 50 per cent of the trips to make sure we have adequate coverage of the area. We are mindful that there is an albatross issue, but we are doing it also from our data collection point of view. We need to maintain a spread of data off that coast. Historically, it has been a minimum of 10 per cent, but we have achieved higher than those levels in the past few years.

Mr LAURIE FERGUSON—This change in fishing practices that goes above 30 degrees—where does 30 degrees run through?

Dr Rayns—Basically, 30 degrees is northern New South Wales and just above Perth in WA.

Mr LAURIE FERGUSON—So getting a higher proportion of Tasmanian coverage might not be all that great?

Dr Rayns—What we are trying to do with the Tasmanian figures is to maintain

our spatial coverage where we have only got 200 tonnes to be taken by the Japanese in the zone around that area. In order to do that, we have to increase the observer coverage on the remaining trips. It keeps our figures and statistics relevant rather than leaving holes in them—which we would otherwise get if we stuck with 10 per cent around that area.

Mr LAURIE FERGUSON—I do not follow that fully.

Dr Rayns—What I am saying is that we are trying to cover a certain number of trips and, if you have fewer boats in the area, you have got to cover more on the trips that are left. If you have 20 boats, and you are covering 10 per cent, you go on two trips—

Mr LAURIE FERGUSON—I see. So, in a way, that statistic you cited of an increase in Tasmanian coverage in the beginning was not that important?

Dr Rayns—Sorry?

Mr LAURIE FERGUSON—I understand why you have got to have an increased proportion of those boats but, in regard to overall coverage, that figure is not that significant?

Dr Rayns—Yes. The number of trips covered is probably about the same as it has been historically. That is what I was saying: it depends on where the effort is spread in the fishery, and the percentage does vary. But we try to maintain it above 10 per cent elsewhere.

Mr LAURIE FERGUSON—I do not know whether you are expert on this, but my recollection on the question of albatross is that there were flight paths by the male and female that were very different. The female went north and the male went south, et cetera. How does this 30 degrees impact on that?

Dr Rayns—I can answer that generally and then turn it over to someone who knows more about albatross than I do. My understanding is that the way we have adopted the tori pole regulation in Australia is that all vessels operating south of 30 degrees need to carry the poles because that 30-50 degree band is the range in which most, if not all, albatross flights and sightings occur. But I will turn that over to someone from Environment Australia.

Mr Baker—The information you probably heard before on males and females—one going north and one going south—does not relate to information collected within the AFZ. You do have a submission in front of you from David Nicholls which talks about some of the radio tracking work that he has done around New Zealand and Australia.

Perhaps one of the big impacts of fishing around Tasmania—which is below 30 degrees south—would be on species such as shy albatross which breed on islands just off

Tasmania. There is quite a high take down there, particularly in the summer months. I have not seen any information on whether there is a difference in the catch rates between sexes.

Mr TONY SMITH—What steps, if any, has the environment department taken to implement recommendation 18—in relation to a specialist observer training program—of our report? Was this factored in in negotiations with Japan?

ACTING CHAIRMAN—This is the report on the southern bluefin tuna treatment.

Mr Baker—It is part of the TAP process. We are dealing with the issue of observer coverage in the threat abatement plan process. The draft threat abatement plan should be prepared by the end of the year. It would probably be premature to comment any more on it at this stage.

Mr TONY SMITH—In other words, nothing has been done to implement that recommendation?

Mr Baker—Something is being done.

Mr TONY SMITH—But nothing has been done, in terms of actual people on board and a program and that sort of thing?

Dr Rayns—You are probably correct that we have not implemented anything as yet, but Mr Baker is correct that things are in train to do so. The issue of specialist observers is a difficult one: it may, for example, mean having two observers on the one boat, if we did that. That presents a lot of logistical problems. What we are trying to favour is making sure that we have an observer program which adequately addresses the needs regarding seabird by-catch rather than having a separate set of observers on vessels to deal just with seabird by-catch. But, as Mr Baker said, that issue is being dealt with through the threat abatement plan process.

ACTING CHAIRMAN—Could we get a copy of the draft plan for this observer training program, when it is prepared?

Dr Rayns—Yes, certainly.

ACTING CHAIRMAN—I have one other question. Ms Thiele, your expertise is in dolphins. I think earlier this year the *Sydney Morning Herald* carried what I regarded as quite a distressing article on dolphins being caught for scientific purposes. I think Laurie Ferguson also read the article. Is that occurring in Japan or any other countries? The article said that the Japanese said it was for scientific purposes, but then the article went on to describe what would probably happen to these carcasses; namely, that they would end up on the market. Is there any risk that hunting is occurring in any country of the world?

Ms Thiele—In lots of countries around the world because there is no international regulation of small cetaceans. The International Whaling Commission only covers the large baleen whales and the sperm whale.

ACTING CHAIRMAN—Is there a move to cover the smaller species?

Ms Thiele—That is what CMS and some of the other organisations are trying to do. The IWC is also moving towards that, but, obviously, Japan and some of the countries which do take small cetaceans on a large scale are in that forum. It is a slow process getting small cetacean conservation recognised.

ACTING CHAIRMAN—Do you think the Bonn process moves towards bringing them in?

Ms Thiele—Yes, it helps with regional agreements, particularly in the Southern Hemisphere. It can be helpful because a lot of countries are working together. There are some major problems off South America.

Senator ABETZ—Is it the Amsterdam albatross that has got only 19 breeding pairs left?

Ms Weaver—The Amsterdam albatross is the rarest of the 14 species. I am not sure of the number of pairs.

Senator ABETZ—Whereabouts are they breeding?

Ms Weaver—Mainly in the Northern Hemisphere or Hawaii north. I am sorry, that is incorrect.

Mr Baker—There have been some changes to albatross taxonomy and the use of common names. The Amsterdam albatross I think, breeds on Amsterdam Island. I will just check that.

Senator ABETZ—Amsterdam Island is where?

Dr Rayns—In the southern Indian Ocean.

Senator ABETZ—I think we ought to go on an overseas trip and find out exactly where they live.

Mr Hermes—They are very cold and icy places.

Senator ABETZ—If the officials cannot tell us, we really do have to take this into our own hands. What other Australian species are listed? I saw all these names in the

appendix and I have to say that I am not sure what sorts of animals they are and whether they visit Australia or breed in Australia. Are there any other Australian animals, birds or species in that appendix?

Mr Griffiths—Would you like us to table something or provide something for you?

Senator ABETZ—You can take it on notice if you like.

Mr Griffiths—We can do it quickly, I think.

Mr Scotney—There are quite a lot of bird species, migratory wading birds in particular, that are listed under the Bonn convention. They would be the most numerous, I suspect, of the species that Australia has a particular involvement with. I can certainly table a list that has common names as well.

Senator ABETZ—If you could—it is just out of general interest—I would be indebted to you, thank you. Have we agreed that they do breed on Amsterdam Island and in the Indian Ocean somewhere?

Mr Baker—They breed in the southern Indian Ocean on Amsterdam Island and they are in very low numbers.

Senator ABETZ—The Indian Ocean is a pretty big place, a big drop of water. Whereabouts is it in relation to our coastline?

Mr Baker—It is between South Africa and Australia.

Mr Scotney—It is a very long way from anywhere.

Senator ABETZ—If you talk to Mr Bullimore, that is a fairly long way, I think.

Senator MURPHY—In regard to the use of these poles, what other work is being done to develop other techniques for long-line that might actually decrease the rate by, say, 100 per cent?

Mr Baker—There has been quite a bit of work done, actually. There is a lot of evidence now that suggests that setting at night reduces by-catch by between 92 and 97 per cent. On a moonlit night, you will catch a few birds. That is where the 92 per cent figure comes in. At the moment, the New Zealanders are developing some underwater setting techniques—two in particular. The first involves a capsule where the bait is put in a capsule, dropped into the water and released at a particular depth. The second involves the bait being fed down through a tube and set under the water. These techniques look to be very promising. We would also like to perhaps experiment using a suite of techniques

on boats that will reduce by-catch substantially.

Senator MURPHY—Is there any data of the tube setting?

Mr Baker—I do not know of data of the tube setting at the present moment. It is a technique that is being developed, but New Zealand fishers put some money into developing these techniques. They got two prototypes going and then made a decision as to which one they would proceed with. They have moved away from the tube. They are actually pursuing the capsule concept at this stage. There is a video which our New Zealand colleagues showed us just the other day. If you would be interested in having a look at that, we could get it for you.

Senator MURPHY—Yes, I can recall seeing a documentary on the tube setting.

Mr Hermes—Just on that, there is some encouraging news—and that is through Australia's pressing in the international area. It is a point that we have made in the DPIE submission. Certainly, we are very active through the TAP process, et cetera, in the domestic zone. But it is really the high seas where we really need to have an impact on what happens.

We have already mentioned that, within the Tuna Commission, Australia, New Zealand and Japan have all now agreed that tori poles will be compulsory on their boats. This has been implemented because of great pressure by Australia and New Zealand to have this as a standard within the commission.

At the recent working group of the commission, there was also an agreement that we would look at the economics of night setting—not so much from the point of view of whether or not night setting decreases the catch of birds but whether night setting is to an economic advantage of the fishers. If it turns out to be an economic advantage to the fishers, we believe that that would be an enormous boost to the use of night setting and it would become almost an economic process. So there are some very encouraging signs as to the effectiveness of our strategy to date in terms of having effect on the high seas where it needs to be a cooperative arrangement.

Senator MURPHY—Regarding the use of tori poles, I thought I heard Mr Baker say that some observations have found that whilst boats may have them, they are not using them or not setting them right. If that is a real problem, I would have thought the more research that is done to find something that, firstly, people will use and, secondly, will be successful is where the effort ought to be rather than necessarily convincing the Japanese that they ought to have them.

Mr Baker—I certainly agree that there is more work needed in that area. Basically, you need education. If you have developed a technique or a suite of mitigation techniques that we are convinced will work, you then have to persuade fishers to use these

mitigation methods. There has been some effort made to do this. There have been some booklets produced not just in English but in other languages which have been distributed to fishers. Nigel Brothers from the Tasmanian Parks Service, and some of his colleagues, have gone on board tuna vessels and talked to a lot of tuna boat owners and masters and shown them how they can reduce their by-catch problems. So perhaps an extension program may be something that comes out of the TAP process.

ACTING CHAIRMAN—I understand we are going to be talking to Nigel in Hobart. Senator Murphy, do you think we could perhaps borrow a copy of that video?

Senator MURPHY—Yes, I would not mind having a look at that.

Mr Baker—We will get that to you. It is very short, but it is pretty instructive.

Mr TRUSS—If you have already covered this tell me and I will read it in the transcript. How many countries are signatories to the Bonn convention? More particularly, are the countries where the particular species we are talking about wander signatories to the convention?

Mr Scotney—We have actually covered it, but I would be quite happy to cover it again. There are 49 signatories at the moment, and there are several other countries that are expressing interest in signing up. In terms of the southern hemisphere albatrosses, two countries that we would be particularly keen to involve in a regional agreement are not members. Those countries are Brazil and New Zealand.

Mr TRUSS—That is a serious defect in the plan, isn't it?

Mr Scotney—Not necessarily. The regional agreements are not closed to non-members. They are open to all parties and certainly the indication is that New Zealand would come on board a regional agreement. Also, we have every expectation that all the South American countries would do likewise.

ACTING CHAIRMAN—No other questions? Thanks very much to everyone for coming along. Your input was very informative.

[10.09 a.m.]

BATTAM, Mr Henry, Assistant Secretary, Southern Oceans Seabird Study Association, PO Box 142, Unanderra, New South Wales 2526

FOSTER, Mr William John, Executive Officer, Humane Society International, PO Box 439, Avalon, New South Wales 2107

GLADMAN, Mr Darren John, Campaigner, Greenpeace, GPO Box 3307, Sydney, New South Wales 2001

NICHOLLS, Mr David George, Honorary Research Fellow, Albatross Research, La Trobe University, c/- Peninsula Institute of TAFE, Bonbeach Campus, Breeze Street, Carrum, Victoria 3197

SMITH, Mr Lindsay Edward, Vice-President, Southern Oceans Seabird Study Association Inc., PO Box 142, Unanderra, New South Wales 2526

ACTING CHAIRMAN—Welcome. Mr Smith and Mr Battam are first on the queue. We have received your submissions and the members of the committee have read them. Before we ask questions, I will ask the representatives of each organisation to give an outline of their positions, in so far as they may be different, but I understand there will be quite considerable overlap. Mr Smith or Mr Battam, could you give us your brief outline, bearing in mind that we have read your submission?

Mr Battam—From hearing the discussion around the table this morning from the representatives from AFMA and from Environment Australia, I would say that the current focus seems to be on the threat abatement plan, which is strongly associated, I guess, with long-line fishing. While this is recognised, I think there are some more subtle effects of long-line fishing that are affecting albatross populations, effects which I attempted to bring out in our submission.

There is a race of the black-browed albatross on Campbell Island that forages regularly in our waters. There is ample literature around to show that it is present here in reasonable numbers. And the grey-headed albatross also breeds on Campbell and South Georgia. Long-line fishing does not adequately explain the decreasing population levels of these birds. It would appear, and the evidence is mounting to suggest, that these birds are highly dependent on the presence of high-level predators in the ocean disturbing their prey and forcing it up to the surface so that the albatross can use this prey as forage. It is a significant part of the albatross forage; and so it is a major food resource. The fact that large predatory fish, sharks, tuna and some of the cetaceans have been heavily cropped and are holding much lower populations than they ever did in history suggests that this is a subtle threat to the decreasing albatross population levels, and one that cannot be ignored.

The strong argument for long-line fishing is that, if we can remove the by-kill, it is a nice clean method. It targets the target species and does very little other damage. I hold that long-line fishing, while it does this, is a very efficient method of removing these large predatory animals from the ocean. For instance, compared with their population levels back in the late 1950s and early 1960s, southern bluefin tuna levels are, I would suggest, still less than five per cent of their original stocks, and I think that current CSIRO and AFMA figures support this.

The long-term decrease in this particular level in the food web could be expected to significantly change the energy flow in the marine environment. From the increase in the numbers of King penguins and fur seals on some of the Southern Ocean islands, I would suggest that there is a very strong change in the energy flow within the biomass populations in the Southern Ocean. Most of the energy flow studies in the Southern Ocean have been made at the lower levels—zooplankton, phytoplankton and perhaps krill. But, for the levels above that, there is very little knowledge of energy flow in the Southern Ocean.

Changes in animal populations suggest that there have been major changes, possibly and perhaps very strongly suggested to be occurring in the upper levels of the food web. This, of course, involves the large predatory fish and the albatross populations. I want to bring this to your attention as something which should not be forgotten.

A couple of other points are that the people who are involved in fisheries and albatross studies are essentially looking at species. The fisheries people are basically fish biologists, and I do not see a lot of ecological work being done. Similarly, at the albatross level, there are people studying seabirds and perhaps the surface ecology and the terrestrial ecology of albatrosses, but the total ecology of the marine environment needs a lot more attention. Looking at the CSIRO submission, I see that perhaps there is an opportunity for them to become involved in that.

ACTING CHAIRMAN—Thanks very much. We will come back for questions. Mr Gladman, you might like to give a brief outline of your paper, again bearing in mind that we have read your submission. There may be some points that you want to speak to before we come back and follow up with questions.

Mr Gladman—I was glad to see that a number of the points we raised in our submission were supported in previous discussions—for example, a recognition of the need for a comprehensive observer program on domestic vessels. That is very gratifying. One of the issues arising out of the Greenpeace submission that needs to be seriously addressed by this forum is the issue of how effective tori poles really are. In our submission we gave some indicative data from the New Zealand fishery which indicated that the rate of by-catch was about 1.13 birds per vessel per day, based on that data. Since submitting that to the inquiry, we have also been informed that there was an instance very recently in New Zealand where, over a period of four nights, one vessel took 65 birds, 41

of which were believed to be albatrosses. The very significant thing about that incident is that it took place at night. The fishing was at night, it was in the dark phase of the moon and we understand that tori poles were used. So it does raise some serious question marks over the effectiveness of the two major mitigation methods which have been put forward—night setting and tori poles.

If night setting and tori poles are not as effective as we might have hoped, that leads us to the question of what other mitigation methods might be put forward. From discussions I have heard so far, the two alternatives would be either underwater setting or, possibly, excluding long-liners from areas of known high albatross mortality. The point of discussion then becomes whether you advocate excluding long-lining from areas of high albatross mortality until effective mitigation methods have been proven and implemented or press for the research and implementation of effective by-catch mitigation methods while that fishing continues. From an ecological perspective, taking a precautionary approach, Greenpeace would advocate closure of areas of high albatross mortality until there are proven mitigation methods being implemented. But I expect that other people would have other views on that, and that is a point that will, hopefully, be discussed through the threat abatement process.

ACTING CHAIRMAN—Thank you very much. Mr Foster, do you want to speak to your paper?

Mr Foster—Yes, thank you. One of our key recommendations is that, as a global citizen—because of the expertise and the data that is available and also because it is the only developed mega-biodiverse country—Australia should take the lead in the coordination of the range of states involved in the process. We are glad to see there is almost universal support for this, and we are very encouraged to see Australia taking this position.

One of the key things we hope will come out of this is that we see independent observers on board all the boats operating inside the Australian fishing zone. Also, in order to ascertain exactly where the boats are and why they are there when they are there—especially in view of what is happening at the moment with the illegal fishing going on down in the sub-Antarctic islands—we hope vessel monitoring systems will eventually be made mandatory on all boats within the Australian fishing zone and certainly on the SBT fleet initially, and that mitigation devices will be made mandatory not just for foreign fishing fleets operating within our fishing zone. Independent observers are also necessary to overcome the possible risk of misreporting. This could have bearing on the cetacean issue in particular.

We were interested to hear the comment from Environment Australia that current practices are not likely to impact on the listing of the two small cetaceans in the cetacean action plan for the spectacled porpoise. Incidental captures and expanding fisheries in the Southern Ocean, especially in areas adjacent to subantarctic islands, were actually

nominated as a threat to this species in particular, which has already been identified as one of the rarest in the world.

ACTING CHAIRMAN—Is that the same situation with the dusky dolphins; are they down there? I think two were listed.

Mr Foster—That is right. Quite possibly it is, but it would seem that the evidence is there, certainly at this stage, for the spectacled porpoise. Taking up on Mr Battam's comment, the pelagic squid fishery is also likely to impact on the recovery of the current status of this species.

With regard to where we are with this, HSI has been calling for an environmental impact statement to be undertaken for the Heard Island, Macquarie Island and McDonald Island fisheries but, to date, no environmental impact statement has been undertaken by AFMA. We feel that this slight contradiction in terms could perhaps have been avoided if that had been undertaken. We also note that the Australian National Audit Office called for an EIS to be undertaken under AFMA fisheries and, again, to date this has not happened. They are probably my main points; the rest will perhaps be picked up in questions.

Mr Nicholls—I have the additional table that I foreshadowed and I would like to take you through our results. In figure 1, we have shown that the albatrosses are concentrated between 30 and 50 degrees south. I have shown you individual flights which have been published in our submission and also in an article in *Emu*, which was an appendix to the submission.

Our results show a number of things. Because the birds are moving very rapidly between all the fisheries areas and are persistently searching areas that are used by the fishers, it is inevitable that, no matter where we close or move the fisheries, the birds are going to find the fisheries. This means that the mitigation techniques have to succeed.

The CCAMLR convention has made a lot of progress in outlining techniques for protecting albatrosses. Its jurisdiction is to an area that, in the case of the wandering albatross, does not cover that area, and so we depend on the Bonn convention to make that good. Our work started out as pure research, where we were rather inarticulate and even awkward in how we rationalised it but, after four years work, what started out as scientific discovery turned out to produce compelling, powerful and very elegant evidence that has a direct conservation consequence.

The lesson I take from that is often repeated by scientists: that the pure exploratory research eventually has a practical consequence. I would never have guessed that, in four years, we would have produced such a quick turnaround. Mr Battam's comments about understanding the ecology of the sea are particularly pertinent.

If I may, I will show you a map and, as best I can, I will talk to it so that *Hansard* gets a record of that. The deserts are this purple and dark blue and the rich areas of the sea are bright red, orange and yellow. So there is the north Pacific salmon, the Japanese fisheries and the North Sea fisheries. If you want to go and see seabirds you go to the Northern Hemisphere.

Our results have shown that the 30 to 50 degree band is the albatross country. That is the area the albatross are using. The very rich krill of 65 degrees south is not used by the albatross that we are studying. But you can see that the richest albatross country is South America, second is Australasia and third is South Africa. If you superimpose the flights we have done, you get this sort of pattern or you get the bird that flew for a full year, which used this area extensively but significantly visited Chile. Why? Because you can see the intense red production and the very high levels of productivity off Chile.

My table shows that other albatross that breed east of New Zealand visit Australia and then go straight to South America over flights of seven days to cross the Pacific. We have published figures of over 1,000 kilometres a day. Then they spend four to six months sitting off the Patagonian shelf here. The smart money is that they will keep going to come home. But our results show that, from Crozet, the birds are using this area of the Tasman Sea, Australia and New Zealand and then flying back into the headwinds to their breeding area on Crozet Island. For the record, Amsterdam Island is in here.

Senator ABETZ—Whereabouts? That will not be shown in *Hansard* when you say ‘in here’.

ACTING CHAIRMAN—About one-third of the way across the Indian Ocean would be a fair assessment.

Mr Nicholls—In the absence of any concrete knowledge—because we really only had end points from banding recoveries, so we knew where the birds started and where they ended—what our results from the satellite telemetry are showing is that they are picking off these rich areas. The consequence of that is that we can see which countries are involved. There is a third species, which is a very small population, which flies this route with the winds across the Pacific Ocean, but then flew up north to Peru.

We can identify each range state and which countries are involved. The consequences of the Bonn convention are more than just listing the species; they will enable us to establish conservation agreements between the relevant nations—the ‘range states’ is their phraseology. I have tabulated that on our evidence, and our evidence is only a fraction of the total.

ACTING CHAIRMAN—In other words, to be effective, the methodology has to include all the migratory routes. They cannot have a local approach, it has to be across the migratory routes as a whole. Is that the effect of your submission?

Mr Nicholls—We are seeing where those routes are and, therefore, which nations are involved and which conservation agreements we need to set up, which brings me to the national interest assessment that ANCA did. I approve of 90 per cent of it. I would have taken issue with a couple of points. One would be that there is not any further cost. I would have suggested that Australia has taken a leading role in albatross conservation. We need to follow that through to get the range states agreements.

I also feel strongly that we have discussed by-catch. I am not an expert in that area; I only see that there is a range of opinion on what the effective techniques are. I think we could be a lot more energetic in firming up that research. Initially there is a cost, but there is a substantial benefit not only to albatross and the ecology of the Southern Ocean but also, hopefully, to the fishers. An albatross caught is a fish not caught, and they have to set the bait and there is time.

Mr HARDGRAVE—Regarding the sort of research that you have talked about this morning, is that more of a snapshot or is there some sort of trend that you can identify that maps a decline?

Mr Battam—There is a substantial amount of literature that is not easily summarised that covers this particular area.

Mr HARDGRAVE—So when you are talking about the comparison of stock and the picture of decline that you have painted this morning, this is as a result of a longer-term observation?

Mr Battam—That is right.

Mr HARDGRAVE—And you are marrying that in with the continual fishing of tuna, et cetera?

Mr Battam—Yes. The trouble with albatross populations is that, because their population dynamics are so long term, the turnover is very slow. You are looking at a bird that matures late. A generation in an albatross population is much the same as humans. Under 10 years, it is very hard to pick up population trends and then correlate them with changing environmental factors. This is why you always have this 10-year time lag to get a handle on what is happening with populations. Recent papers suggest that there is a problem in this area.

Mr HARDGRAVE—Papers such as that of Mr Nicholls in fact talk about the problems with juveniles. It seems the juvenile birds are perhaps making more mistakes than the older ones would and, as a result, there is a decline in juvenile stock.

Mr Battam—That seems pretty right, too. There is another problem with breeding success in some species. The evidence available and the data available suggests that they

are limited by the amount of food they can get within range of their breeding areas or breeding islands. Normally, their breeding success is pretty high. The wandering albatross, for instance, has been suffering a lot from long-lining. The adults have been particularly hard hit. The evidence from South Georgia and Crozet suggests this.

Their population, particularly on Crozet, appears to have stabilised. Their breeding success is still very high. Even though their populations have been knocked around, their breeding success is high. Whereas, other species' populations have been knocked around by long-lines but their breeding success has dropped, which suggests that the forage is not available and the food within the range of their breeding islands has vanished.

Mr HARDGRAVE—Are you trying to set the scenario for the end of long-line fishing?

Mr Battam—Bloody oath I am! I used to think we could live with them, but for some species I am sure that it must be curtailed. We have to let the predatory fish stocks come back up and then see the effect. If the populations come back up—

Mr HARDGRAVE—To take Mr Gladman's suggestion, if you were to isolate certain areas and create a mitigation zone where there was absolutely no fishing going on, for instance, that would not solve the problem though, would it?

Mr Battam—If you look at albatross populations, they are very low. Because they are so high up on the food chain, the energy flows up, and by the time it gets to the top there is not much available. They compensate—they hold their populations up by covering vast areas of ocean, and that is how they manage it. I think Mr Nicholls has demonstrated pretty well that these birds are covering those vast areas. It is very hard to just say, 'I'm going to eliminate the fishers from this area,' and hope that things will go away.

ACTING CHAIRMAN—Would it be a start, though?

Mr Battam—Perhaps it could be a start, yes.

Mr HARDGRAVE—I have one more question in two parts, the second part being: is there any real point to this question, given the huge migratory pattern of these birds, but are more albatross killed here in the Australian region, or less than the apparent average of 1.3 per vessel per day?

Mr Battam—I cannot really answer that.

Mr HARDGRAVE—Do you think we are leading the way or trying to do better than other countries?

Mr Battam—We are. I talk to Nigel Brothers fairly regularly and it would appear

that at this stage the threat abatement plan does not appear to have had a great effect on long-line by-kill of albatrosses. Even though we have used some methods, there has been some offsetting. The fact is that if you improve the amount of baits that get into the water for various reasons, that is more bait for albatrosses. Another thing is you have got small birds bringing the baits back up to the surface and things you do not really think of when you first go into some of the threat abatement plan activities. It is all very good, and we have got to keep trying.

Mr HARDGRAVE—But, given their migratory nature, is it possible that, where there is the most intense fishing, given that there is this great loss of forage, the birds are coming to where the fishing is and that is part of the problem?

Mr Battam—That is where they are going to get a feed. That is where the fish are most active. That is where the forage is. You have got these large fish moving around, not too far from the surface, forcing the prey up. So you would expect that the albatrosses are going to be there, for sure. There is a strong commensal relationship.

Senator MURPHY—You were saying that where they have flown across to South America the money is that they will continue to fly around. You do not know that as yet?

Mr Nicholls—Correct. The way we see it at the moment is that we have done four years of exploratory research with the satellite tracking and we have shown that the techniques are working, we have shown the quality of information and the relevance of the information which has come out of it. The managers now need to apply that systematically to the other species and the parts of the population that we have not examined yet—the juveniles, for example. We need to work our way systematically through the different species. Of course, that can be prioritised. The satellite tracking is \$10,000 a bird for six months of flight, and we are working hard to find techniques to reduce that cost so that we can get the answers in economical terms.

Senator MURPHY—I just want to understand the research in terms of what you have done. The bird leaves Australia, and it is now off Argentina somewhere. These are adult birds, I assume. Are they breeding-age birds?

Mr Nicholls—Yes.

Senator MURPHY—They have left one point and are at another point after four years. In terms of their breeding grounds, where are they? Do they have a particular breeding region?

Mr Nicholls—Yes. They are isolated islands in the subantarctic—Macquarie Island, Heard Island, Crozet, South Georgia and a swag of islands off the south of New Zealand. The British and French have worked hard on the breeding flight patterns for some species. For the breeding areas, that is about half the bird's life. Our satellite

tracking has tried to map the foraging area of New Zealand breeding birds. That would give us a systematic picture of the largest albatrosses.

Senator MURPHY—At the moment, it seems like you have birds that have flown from here to there and I do not know whether they have bred or not.

Mr Nicholls—When they are breeding, they have to stay 2,000 kilometres to 3,000 kilometres around their island, which locks them onto the Tasman Sea if they are breeding in New Zealand, or it locks them onto the south Indian Ocean if they are breeding in the south Indian Ocean.

Senator MURPHY—So they do not necessarily have to be fixed onto one island where they go back year in and year out?

Mr Nicholls—They do go back to—

Senator MURPHY—Some I thought did.

Mr Nicholls—They do go back to within about one metre, nest and breed. In the case of the wandering albatross, they will have a year off and they will move over 10 times that area, and they will spend half their time doing that. We tend to put the emphasis on the breeding birds, because that is the easiest to study.

Senator MURPHY—I understand that.

Mr Nicholls—Our study is uniquely trying to address the birds when they are between breeding—when they have a year off to recuperate to get the energy to start breeding again.

Senator MURPHY—What I am trying to get around is this four-year thing.

Mr Nicholls—Our study has been over a four-year period. We have one bird that has flown for a full year, but most of them have flown for parts of a year. But it is the year that has not been studied elsewhere. It is showing the pattern in those movements, which is not a random process. It is very carefully targeted to get to the most productive areas which are also the fishing areas.

Senator MURPHY—With regard to this question about the implication of over-catching fish—which I think is a very real one and one that is probably causing a greater problem than a lot of the by-catch problems and is only just becoming evident—in terms of information and data about populations, say, 20 years ago, is there any information that people have been actually looking at trying to make some assessment of it? If you look at the by-catch figure, even though it is an assessment from only five per cent of the boats that actually fish and even though it is high, it would seem to still not be high to the

extent that that would be the huge impact on the populations of the birds alone.

Mr Nicholls—The answer to your question is that we watched the South Georgian population decline over 20 years, which is one of the most studied, and we have seen a 10 per cent to 50 per cent decline in the south Indian Ocean populations.

Senator MURPHY—Over what period?

Mr Nicholls—Over the last 16, 17, 18 years for the south Indian Ocean. The results are just coming in after an immense amount of work from historical research. It is very hard in New Zealand's case because they do not have permanent stations monitoring. So it is much harder to work out what has happened over the last 20 years.

But the general picture is that albatross populations have declined. Some may be stabilising at the moment, but if you look at other species they seem to be in big trouble. All the juveniles that should be coming through as the next generation of adults are missing. There are many species and there are many populations and it is a complicated picture. But the overall message is unequivocal—albatrosses are in big trouble. When you do the arithmetic and scale up what you called the 'five per cent', there is no question the by-catch is the biggest single component of the decline. I do take Harry's point that there are ecological consequences, and I think that is a very interesting and important issue.

Mr ADAMS—Is anyone going to have a look at your theory? Is there now some direction to—

Mr Battam—The British Antarctic Survey people in South Georgia are looking at it.

ACTING CHAIRMAN—Just on that point, I think I asked a question of the previous witnesses from the government departments about whether habitat degradation was an issue. They said that while it was with respect to the dolphins, it was not such an issue regarding the albatross—at least in Australia—and that it was more a consequence of the by-catch. But you disagree with that. You think habitat degradation and, in particular, removing these predators to move the fish up to the surface is very relevant?

Mr Battam—Definitely.

Mr ADAMS—That is exactly the point I was making. Are we going to leave that up to the British to do something? They are doing some research—

Mr Battam—They have written it up in recent papers. There is also a New Zealand internal report on the same problem. But I do not think the New Zealanders will be doing anything because they do not have the resources. The British have only one small population in the Southern Ocean and their results are not necessarily going to give

us the whole picture.

Mr ADAMS—What I am saying is that this is a very rational argument. Are any research funds that you know of going to be directed towards having a look at it in the future?

Mr Nicholls—Not locally, there aren't, not that we know of.

Mr ADAMS—I am asking you whether you know of any.

Mr Nicholls—I know that I have applied repeatedly, and we do not see the next generation of funds coming. I know that AFMA has a legal responsibility for ecologically sustainable development and fisheries. I have repeatedly applied for big and small grants, and I have not had any joy there. I have applied for funds from Environment Australia. They have given us 10 per cent of what we have used. The other 50 per cent has come from pure research money and the other 40 per cent has come from private foundations—for example, the Ian Potter Foundation. I think it is fair to report to you that getting funds for this legitimate research has been very discouraging from those that have the legal responsibility, those that are the lead agency and have the responsibility for ecologically sustainable fisheries.

Mr ADAMS—Would anyone else like to add to that?

Mr Battam—We have had the same response.

Mr Smith—Getting back to the point about whether anything is being done to look at the ecological practice of it, I have just noticed that the CSIRO has merged recently with the Division of Fisheries and come up with the Division of Marine Research. Perhaps someone there will start to look at the ecological structure of the food web to see what the impact of taking these large predators out of the system is.

ACTING CHAIRMAN—I think the evidence overall is that it is essential to look at that whole migratory route. Is anyone of a different opinion that it may be worthwhile looking at Mr Gladman's suggestion about quarantining at least the high loss areas from long-line fishing?

Mr Nicholls—I think our satellite-tracking data enables us to model and quantify that and see whether it is efficient and effective. I do not know the answer, but at least we have some of the tools and some of the information.

Mr Smith—Problems arise when you are looking at any albatross population, particularly the wandering albatrosses for example. The areas utilised by them whilst they are breeding are far remote to the non-breeding birds. Basically, if a wandering albatross gets to breed once every three years—it takes them 12 months to reproduce—they have to

take a year off to recover because they cannot moult, for example, and feed chicks at the same time. What happens is that there is one group, even though they return to the same natal breeding islands—the exact same spot—that is foraging within say 1,200 kilometres of that, and the non-breeding birds are moving to the other side of the world to forage there. It is very difficult to close two areas.

There is a lot of talk about closing areas within the foraging range of the breeding islands, but you could only do that at a certain stage because the foraging range of these birds is incredible. For example, satellite tracking has shown, particularly with the French, that one bird went 16,000 kilometres in 12 days—it might have been 16 days and 12,000 kilometres, but it was an incredible foraging range. To answer your previous question as to whether there are any areas we can close off—theoretically, the only way you are going to minimise albatross loss is to close off fishing below 30 degrees.

Mr Foster—There is another angle to that. Given that Australia is committed to a representative system of marine protected areas, and going along the lines of the precautionary principle and that these top predators, at some stage during their life cycle, are likely to congregate around the subantarctic islands and the submarine sea mounts for breeding or other motives we, and I believe the Australian Marine Conservation Society, would certainly argue that these areas should be prioritised for category 1 or 2 marine protected areas as a matter of urgency.

Mr Battam—On the subject of sea mounts, there is a contentious point in a comment made earlier by Dr Nicholas Rayns with regard to albatross populations below 30 degrees south. I have quite a few shy albatrosses here from the Queensland Museum which were taken as long-line by-catch along the sea mounts east of Stradbroke Island in southern Queensland. One of the albatross species—the light-mantled sooty—is often found inside the Barrier Reef. These two species forage regularly up in that area. Looking at Mr Nicholls's GIS chart, there is a nice little strip of productive water in south-east Queensland running up between the sea mounts and the coast, that is an area that is well above—

ACTING CHAIRMAN—It may be too simplistic to say, 'just below the 30 degrees'?

Mr Battam—Definitely. There is a lot of long-line fishing in that area; it is very intensive.

ACTING CHAIRMAN—The final point which has been emphasised is that much more urgency needs to be applied to by-catch mitigation devices. The thrust of the evidence, as I understand, following on from Senator Murphy, is that you are saying that people really have to start looking at the broader consequences of long-line fishing?

Mr Battam—Yes.

Senator MURPHY—Mr Battam, did you say that there was some British research done on the overall catch in terms of its effect?

Mr Battam—They can only work with the populations they have got.

Senator MURPHY—Yes, I know. But have they looked at it and is there some information about that? Is there a paper about that?

Mr Battam—There are a number of papers from their biologists. At this stage, trends have suggested there is a cause for concern about populations but there is still a long way to go. They are just starting to pick up the trends, and I guess they will be into that area of research, but it will probably take several years before their results come out. But we cannot wait that long. That is the trouble with these albatross populations—you have to go on the trends, you cannot wait for the final results.

Senator MURPHY—With regard to the significant reduction that happened in terms of the tuna fishing—it was simply because there were no fish—is there any sort of indication from, say, the stabilisation of the bird populations, or is there anything which identifies that there was some effect of that, when there was that very significant reduction in the number of long-liners?

Mr Nicholls—Rosemary Gales could give you figures on that. The south Indian wandering albatross populations have improved their lot on the 10 and 50 per cent declines. The New Zealanders are just analysing the last six years work and they are beginning to get ready to publish their results on that. My concern is that fishing will change its techniques. As they fish out the orange roughy at the sea mounts, as they fish out the tuna, they will move to something else. Then if we sell our second rate equipment, our outmoded equipment, to Chile, the Chileans will use it and we will think we have done the right thing. But it is our birds that have gone to Chile to whom we have just sold the wrong techniques. So, yes, there is some joy as a result of the reduction of the number of tuna. But I do not think that is a reason for easing up on our understanding—

ACTING CHAIRMAN—A reduction in the number of tuna fishers.

Mr Nicholls—Because they are setting the hooks better and that it is having less effect on some albatross populations, I do not see that as a reason for easing up.

Mr Foster—The Japanese are making the fitting of tori poles mandatory after August. This is mainly for new boats coming into the fleet, and there is a massive overcapacity already there. So, on the surface, it is not positive. Also, the Chinese are in the process of building up to 200 long-line fishing boats that are also going to be heading down to the south Antarctic waters in the future. So, as everyone is saying here, there is no time to lose really.

Mr ADAMS—There seems to be a lot of evidence that there is about 50 per cent too much capacity in world fishing in the context of the capital and equipment that is out there to the amount of fish that is there and we just continue to increase the new technologies and the amount of effort. Has there been any work done in that regard in the Northern Hemisphere on this theory that the bigger fish have been taken out and, therefore, that has an effect on the bigger birds? Is there any work in that hemisphere that you know of?

Mr Nicholls—I cannot help you with that.

Mr Battam—No, I have not seen any. Most of the albatross research along that line comes from the Southern Hemisphere.

Mr ADAMS—Greenpeace?

Mr Gladman—I am not aware of any.

ACTING CHAIRMAN—In including everyone together, we suspected you would be substantially making similar points. But does anyone just want to emphasise or re-emphasise any point that we have discussed or is contained in your submissions?

Mr Nicholls—In the national interest assessment, we talked about it being an inclusive process. The TAP and recovery plan process is perhaps representative, and that is aiming to get the best practice for Australia where we have jurisdiction in the Australian EEZ. I do not see it as being an inclusive process. I would have offered La Trobe University our research group's skills. We have experience, a unique data set and we pushed the technology a lot harder. We established a miniature weather station and we are trying to put a black box flight recorder on the birds to try to suss out some of the ecology of these species.

My second suggestion to make the process more inclusive would be to publish the discussions and the decisions and the plans are being produced on the World Wide Web. I think there are technical solutions as to how broad or how narrow you make that available. But it would help to have that public discussion so that we get a broader picture and we do in fact make it more inclusive.

Mr Foster—Just picking up on the comment that no extra costs are likely to be incurred, certainly that would be the case if nothing extra was done, but I think everyone agrees that a lot more needs to be done. So Australia does need to take a lead in this, particularly among the range states. So that will require some funding, albeit on a fairly small scale.

We also feel that independent observers are essential if we are to get the feedback on best practice to see what is working and what is not working, and also to make sure

that the evidence so far given is right, that there is not a high level of by-catch in the various fishing techniques with the small cetaceans, but we only have the fishers' words for that. As evidence has shown, it is in their interest sometimes not to report what they are catching.

ACTING CHAIRMAN—Yes. I think Mr Smith, who was here earlier, asked one of the previous witnesses regarding following up a recommendation that this committee has previously made regarding long-line fishing of southern bluefin tuna. We asked if that witness would provide us with the draft report on both observers and the training of observers. We saw that as being particularly relevant because there is no point in just putting someone on as they need to be properly trained.

Mr Nicholls—Australia puts on 10 per cent, and other nations who are following best practice are putting on five and nine times that. Best practice is partly in the eye of the beholder. We have much to be proud of, but there are areas where we could improve. The two points that my colleague has made are spot on.

Mr Foster—Also, with what is happening and what is likely to continue happening with regards to potential fish wars in the sub-Antarctic oceans, there is going to be a need for urgent and ongoing funding for permanent enforcement in those areas and, in particular, for the impact on the albatross and small cetaceans and everything else that is down there. All the other fishing grounds have been fished out, and even our own commercial fishers are promoting it as the next gold rush.

AFMA could perhaps reprioritise some of their available funding. Better monitoring systems would certainly be a positive way, not only to collect data but also to identify what boats are where they should not be. Perhaps there is the opportunity to take a leaf out of the Malaysian book whereby, if boats are in areas where they should not be, unless they can prove why they should not be there, then the boats are confiscated and sold and the funds are used to go back into fisheries enforcement.

Senator MURPHY—With regard to that issue, particularly for the boats that are a long way south of here, it is a very difficult process for us to monitor, although I understand a lot of work is being done. But in terms of confiscating, I understand that the boats that they might have to use to go down there to confiscate them may not have the ability to cope with the conditions. I think the navy boats can probably deal with confiscation, but it is a matter of whether or not they can cope with the conditions.

Mr Nicholls—We successfully rescued French sailors.

Mr ADAMS—It is always the case that there is a right to legitimate fishing taking place in the Southern Ocean so far as I am concerned. I think the majority of people in Australia would accept that. But I think what we are dealing with in the issues here is that it can have an effect on lots of the species. Sending gunboats into the Southern Ocean is

going to be a decision which will be taken in cabinet, I think.

Mr Battam—That is a pretty drastic step.

Mr Nicholls—The conservation agreement is one mechanism that the Bonn convention allows. The nations that are involved in the illegal fishing have been identified, and they need to be made a part of the Bonn convention. Then there is moral pressure to—

ACTING CHAIRMAN—Such as access to ports and things of that nature.

Mr Gladman—On the issue of surveillance of pirate fishing in the Southern Ocean, it would also be useful if there was more data available on the extent of satellite tracking technology in that part of the world. Particularly thermal imaging would be one way that would appear to be potentially useful in detecting piracy in that area.

Senator MURPHY—They are doing the work, but I do not know at what pace.

Mr Foster—One reasonably cost-effective way for Australia to implement some of these initiatives would be to ask for successful evidence to be shown that these mitigation techniques are being implemented by fishers who wish to gain access into the Australian AFC in the open oceans. In other words, evidence of best practice as a means of gaining access to our fishing grounds could perhaps be looked into in the immediate future without a great deal of further work being required.

ACTING CHAIRMAN—I thank you all very much for your contributions. Your work is to be commended.

Resolved (on motion by Senator Murphy):

That the committee authorise the publication of evidence taken before it at public hearing this day.

Committee adjourned at 11.05 a.m.