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JOINT COMMITTEE ON TREATIES

Monday, 25 June 2001

Members: Mr Andrew Thomson *(Chair)*, Senator Cooney *(Deputy Chair)*, Senators Bartlett, Coonan, Ludwig, Mason, Schacht and Tchen and Mr Adams, Mr Baird, Mr Bartlett, Mr Byrne, Mr Hardgrave, Mr Haase, Mrs De-Anne Kelly and Mr Wilkie

Senators and members in attendance: Senators Cooney and Tchen and Mr Haase and Mrs De-Anne Kelly

Terms of reference for the inquiry:

Treaties tabled on 23 May 2001.

WITNESSES

Committee met at 10.01 1.m.

BOUWHUIS, Mr Stephen, Principal Legal Officer, Attorney-General's Department

FFRENCH, Ms Jean Heather, Director, International (ILO) Section, Labour Relations Policy Branch, Department of Employment, Workplace Relations and Small Business

SCOTT, Mr Peter Guinn, Acting Director, International Law Section, Legal Branch, Department of Foreign Affairs and Trade

STEWART, Mr John Edward, Acting Assistant Secretary, Labour Relations Policy Branch, Workplace Relations Policy Group, Department of Employment, Workplace Relations and Small Business

ACTING CHAIR (Senator Cooney)—Today, as part of our ongoing review of Australia's international treaty obligations, the committee will review four treaties tabled in parliament on 23 May 2001. Specifically, we will be taking evidence on the withdrawal of ratifications of International Labour Organisation conventions. There are four dot points: Hours of Work and Manning (Sea) Convention 1936; Wages, Hours of Work and Manning (Sea) Convention 1946; Wages, Hours of Work and Manning (Sea) Convention 1949; and Wages, Hours of Work and Manning (Sea) Convention 1958. None of them made it.

Ms Ffrench—No.

ACTING CHAIR—Not one. Then we are going to talk about denunciation of International Labour Organisation conventions, the Minimum Age (Trimmers and Stokers) Convention and the Inspection of Emigrants Convention, then we are going to talk about protocols to amend the Convention on Limitation of Liability for Maritime Claims and the Agreement on the Conservation of Albatrosses and Petrels. Does anybody want to start off by saying anything?

Ms Ffrench—No.

Hours of Work and Manning (Sea) Convention 1936
Wages, Hours of Work and Manning (Sea) Convention 1946
Wages, Hours of Work and Manning (Sea) Convention 1949
Wages, Hours of Work and Manning (Sea) 1958

ACTING CHAIR—What questions do you have, Senator Tchen?

Senator TCHEN—For the first two I do not have any.

ACTING CHAIR—Barry, do you have any questions?

Mr HAASE—Chair, I do not, which is inexcusable, of course, but what does the chair have to say about this?

ACTING CHAIR—I think that is a fair question. When we are withdrawing from treaties that deal with hours of work and wages, it sounds a bit brutal almost that we should be not pressing on with these. Can you explain to us why we are not going through a brutal action and why this is a reasonable sort of action that we are taking?

Ms Ffrench—Firstly, those subject matters are already covered by International Maritime Organisation conventions, so the fact that we are withdrawing from the hours of work conventions does not mean to say that we do not have laws implementing them or that we are not party to treaties concerning those conventions. There are several impetuses for why we would be considering withdrawing from them. Firstly, the ILO set up a working party to examine the status of conventions, and it is anxious to ensure that its labour code, which is a shorthand way of saying its conventions and recommendations, is up to date. Therefore, when there are these conventions on the books that are technically still open to ratification and all of them have been revised and obviously do not have the support of the international community, the ILO would prefer to see that they are not on the books any more. It has invited member states who are parties to those conventions or who, in this case, have actually ratified them, to withdraw from them so that they are not on the books any more. That is one impetus.

Secondly, you might recall that we are in the process of ratifying that constitutional amendment of the ILO that will allow the ILO itself to abrogate obsolete conventions. We feel that, by Australia doing this, it gives a signal to other states that we think that that is a good idea and that we should go ahead and ensure that conventions that are on the books are current and up to date.

ACTING CHAIR—We need a certain number of people to ratify the treaties for them to become operative?

Ms Ffrench—Yes.

ACTING CHAIR—One convention has been around since 1936, one since 1946, one since 1949 and one since 1958, just lying there, without enough people to sign up. Is that right?

Ms Ffrench—That is right. Hours of work conventions in the ILO context have never been overly successful, particularly the maritime ones.

Mr HAASE—But there is a controlling treaty that supersedes this that is now elapsing.

Ms Ffrench—In the ILO?

Mr HAASE—Is there an alternative?

Ms Ffrench—Yes, convention No. 180.

Mr HAASE—We are not casting adrift all of those that serve at sea?

Ms Ffrench—No.

Senator TCHEN—I understand that in 1999 the ILO actually invited countries which had ratified those four conventions to withdraw.

Ms Ffrench—That is right.

Senator TCHEN—The initiative came from the ILO.

Ms Ffrench—Yes.

Senator TCHEN—But I understand that the ILO wants to replace it with another convention, convention 180.

Ms Ffrench—That is right.

Senator TCHEN—What does 180 cover?

Ms Ffrench—It covers the same subject. I would have to look up what the exact provisions are. I think they are addressed in the NIA. At paragraph 18 of the NIA it says:

> Convention 180: to update the principles governing employment on board ships by bringing them into line with modern work practices.

The actual convention itself refers to the relevant International Maritime Organisation conventions, which are Convention for the Safety of Life at Sea and the Convention on Standards of Training, Certification and Watchkeeping for Seafarers.

Senator TCHEN—Also in the NIA, it says Australia is unlikely to ratify convention 180. Can you explain why? There are some examples here. For example, subparagraph (a) says:

> Convention 180 requires, amongst other things, that no persons under the age of 18 years should work at night and there is no provision in Australian law that meets these requirements.

Does that mean that in Australia we permit people under 18 to work at night on a ship?

Ms Ffrench—I believe that in practice that does not happen, but there is not a law that says so. I believe that the law says that you have to be at least aged 16 to work at sea. I recall being told that in practice you would have to be 18, but I am not perfectly sure of the details.

Senator TCHEN—That is an area of possible conflict between Australian law and an International Labour Organisation convention.

Ms Ffrench—Yes.

Mr HAASE—Does this cover all service at sea? Is there a minimum size of applicable vessel? Is it fishing fleets? What is the scope? I am now, of course, referring to convention 180 that there is a question of ratification of.

Ms Ffrench—Convention 180 applies to all seagoing ships which are registered in the territory of the member. You can consult with the representative organisations of fish vessel owners and fishermen as to whether you want to include fishing vessels within the scope of the convention. The ILO traditionally adopts separate conventions for the fishing industry. It says that it does not apply to wooden vessels of traditional build, such as dhows or junks; it applies

to all seagoing ships. So it is a matter of defining what is a seagoing ship. In Australian law, there is no definition of 'seagoing ship'.

Mr HAASE—These may be some of the things that we would have to iron out pending any ratification of convention 180, if it were to come to pass.

Ms Ffrench—Yes.

Mr HAASE—But at this stage we are contemplating not ratifying, aren't we?

Ms Ffrench—Not in the short term.

ACTING CHAIR—Clearly, we are just dealing with the first dot point there. In effect, the withdrawal of these does not make any difference to the present situation. The law will continue as it is, with 180 not in operation and these never having come into operation.

Ms Ffrench—That is right.

ACTING CHAIR—What other countries signed it? It would be interesting to know that. Do you know?

Ms Ffrench—The ones that are obsolete?

ACTING CHAIR—Yes. Does anybody know who did sign it?

Ms Ffrench—Convention 57 was ratified by Australia, Belgium, Bulgaria and the United States.

ACTING CHAIR—Is that all?

Ms Ffrench—Usually, for modern ILO conventions, it only takes two ratifications to come into force, but they had more stringent conditions for these older maritime ones. It had to be, I think, generally speaking, 10 countries with a certain percentage of world shipping.

ACTING CHAIR—It is interesting that the United States signed.

Ms Ffrench—Yes, very interesting. I could only comment that perhaps they only had to consult with their seaboard states rather than with all of them. For convention 76, Australia was the only country. For convention 93 there were six ratifications: Australia, Brazil, Cuba, Iraq, Philippines and Uruguay. Convention 109 actually had 16 ratifications.

ACTING CHAIR—But not enough to—

Ms Ffrench—Not enough percentage of world shipping. Do you want me to read them out?

ACTING CHAIR—Just as a matter of curiosity really, yes.

Ms Ffrench—Australia, Bosnia and Herzegovina, Brazil, Croatia, France, Guatemala, Iraq, Italy, Lebanon, Mexico, Portugal, Slovenia, Spain, the former Yugoslav republic of Macedonia, Yugoslavia and Norway.

ACTING CHAIR—Thanks very much.

Minimum Age (Trimmers and Stokers) Convention
Inspection of Emigrants Convention

ACTING CHAIR—Do you want to say anything about these conventions?

Ms Ffrench—No, I have nothing to add to the NIA.

Senator TCHEN—I understand that those conventions are no longer relevant because there is no such thing as trimmers and stokers any more.

Ms Ffrench—That is right.

Senator TCHEN—Also, we do not bring people in by ship any more—except without permission!

Ms Ffrench—Yes.

Senator TCHEN—This is a bit of a side issue, Mr Chairman: what is the implication of Australia withdrawing from certain provisions of the ILO, for example, at the invitation of the international organisation, but at the same time the international organisation then invites Australia to sign on to some subsequent convention which is supposed to replace these conventions and then Australia does not ratify those newer conventions? What is the international implication of that?

Ms Ffrench—I would not see that there would be any international implications. It is not a prerequisite to denunciation that we have to ratify another convention. At the time of denunciation, when any country registers its instrument of denunciation, at the same time it has to provide the ILO with the reasons for its denunciation. I would envisage that Australia would address the reasons why it did not ratify the other convention that the ILO mentioned.

Senator TCHEN—It is not likely to be used as evidence that Australia is actually withdrawing from those international organisation conventions—intends to, or has a tendency to?

Ms Ffrench—I really cannot comment on that.

Senator TCHEN—Perhaps Foreign Affairs can.

Mr Scott—In relation to the way the International Labour Organisation works, you would not draw such an inference. As you can tell by the mere numbers of these conventions, and also the additional recommendations which are not binding, it is understood that parties will move into and out of the regimes that those conventions establish as and when those instruments

become newly relevant or become irrelevant, so there would be no adverse inference drawn from our withdrawal of ratifications or denunciation, particularly of these conventions.

Mr HAASE—Once again we are considering dropping these conventions simply because they are inappropriate or to be replaced with conventions, in due course, which are more appropriate. Is that the general thrust of it?

Ms Ffrench—They are presently obsolete, yes.

Mr HAASE—As to the inspection of emigrants, is it seen that there will never be a purpose for that ever again or are we contemplating some treaty that is perhaps more modern in its application?

Ms Ffrench—There is no treaty that actually revises convention 21. The convention that the ILO has invited us to consider ratifying is about migration for employment rather than inspection of emigrants on board vessels. It is taking it a step further, really. The Australian government has reported to the ILO on how it implements that convention, which is No. 97, and the ILO has commented that there are several areas where Australia's law and practice do not conform with its provisions.

Mr HAASE—Would you care to tell me what defines an emigrant and how specific is the application of convention 97? I am thinking of boat people here.

Ms Ffrench—It definitely has to be a legal emigrant.

Mr HAASE—You are telling me that convention 97 is more appropriate, given modern circumstances, and that there is nothing in the old act that ought not be dropped, because it is well covered in the new convention 97?

Ms Ffrench—Yes.

ACTING CHAIR—I have not properly got my mind around the Inspection of Emigrants Convention. That is No. 97.

Ms Ffrench—No, 21.

ACTING CHAIR—When was that adopted?

Ms Ffrench—Convention 21 was adopted by the ILO in 1926.

ACTING CHAIR—What were the circumstances? Why did they have the convention? You might not know.

Ms Ffrench—I am only surmising here, but there would be what we would call today trafficking in persons, and people were being recruited to work in other countries. When they arrived there, they found they were not being looked after, and they were treated as second-class citizens and did not have the same conditions of employment that the national workers did.

ACTING CHAIR—I am trying to get on *Hansard* what the treaty was about and why we are denouncing it so that we do not look as if we are ticking things off without really giving some consideration to them. Your understanding was that in the 1920s there were a lot of emigrants going to other countries. Where from? From Europe, I suppose.

Ms Ffrench—I am not sure, Senator.

ACTING CHAIR—From wherever. And the conditions under which they took the journey were not complied with when they got to the new country. Is that the sort of thing that you are telling us?

Ms Ffrench—Yes, plus the conditions on board the vessels themselves may have been less than adequate.

ACTING CHAIR—Yes. You would imagine a bit of that would be going on even now, wouldn't you?

Ms Ffrench—Yes, but there are a lot more wide ranging human rights conventions covering actual trafficking that are the responsibility of the Department of Foreign Affairs and Trade.

ACTING CHAIR—This has been overtaken, in effect.

Ms Ffrench—Yes.

ACTING CHAIR—And replaced by much more effective instruments.

Ms Ffrench—More modern instruments, yes, and the ILO itself now chooses to focus more directly on the actual employment of migrant workers when they arrive in the country.

ACTING CHAIR—Rather than on the ship.

Ms Ffrench—Yes.

ACTING CHAIR—I wonder why that is.

Ms Ffrench—Perhaps because migrants tend to arrive by air these days, and it is much quicker, and there is not such an issue of their welfare during a long sea voyage.

ACTING CHAIR—You would not know when the last piece of action in respect of that convention was taken around the world? That would be a bit difficult to ask you, wouldn't it? It would be put into domestic law and then—

Ms Ffrench—The NIA does address it. We went to the trouble of finding out when the last migrants arrived by sea.

ACTING CHAIR—What country was that in?

Ms Ffrench—For Australia.

ACTING CHAIR—We will pursue that. When was the last one in Australia. We will put that on *Hansard*.

Ms Ffrench—The principal modern period for emigrant vessel arrivals in Australia ended in about 1970. The most recent such arrival was 1977.

ACTING CHAIR—You would not know what it is like overseas?

Ms Ffrench—No.

ACTING CHAIR—Thank you.

[10.26 a.m.]

Limitation for Maritime Claims Convention.

ALCHIN, Mr Robert, Policy Officer, Cross-Modal and Maritime Transport Division, Department of Transport and Regional Services

BRASCH, Ms Sarah, Assistant Secretary, Cross-Modal and Maritime Transport Division, Department of Transport and Regional Services

BOUWHUIS, Mr Stephen, Principal Legal Officer, Attorney-General's Department

SCOTT, Mr Peter Guinn, Acting Director, International Law Section, Legal Branch, Department of Foreign Affairs and Trade

ACTING CHAIR—Welcome. I now invite you to make an opening statement.

Mr Alchin—Thank you. I will firstly tell you what the existing convention does and then what changes we are going to make. The Limitation of Liability for Maritime Claims Convention, which I will refer to as LLMC convention, places a limit on the amount of compensation a shipowner is required to pay if there is a successful claim against the shipowner in respect of loss of life or personal injury or damage to property, and that is either on board the ship or arising in direct connection with the operation of the ship. The LLMC convention does not establish liability. It simply provides that if liability is established or a shipowner admits liability then the shipowner is entitled to limit his or her liability. In respect of claims by passengers, this liability then depends on the number of passengers the ship is certified to carry. For other claims, the limit depends on the size of the ship. If there were no liability limits a shipowner might not be able to obtain insurance cover but I also stress that the LLMC convention does not apply to all claims and, in particular, it does not apply to a claim relating to a spill of oil from an oil tanker because these are subject to separate conventions, and it does not apply to workers compensation claims.

The 1996 protocol which you were concerned about does two things. Firstly, it will significantly increase liability limits that are already set out in the existing convention. Secondly, it provides that future increases to liability limits will be made by what is called the tacit acceptance procedure. Under this procedure, proposed increases will be notified to all contracting states. States then have 18 months to object to the proposed increases. If at the end of a further 18 months objections are not received by a quarter of the parties, then these increases will automatically come into effect. Amendments to implement this protocol have been included in the International Maritime Conventions Legislation Amendment Bill which was introduced into the House of Representatives on 4 April 2001, but those amendments, if passed by parliament, will not be proclaimed to commence until Australia has become a part of the protocol and the protocol has come into force internationally.

Mr HAASE—I am concerned with how this convention impinges on our ability to extract compensation for major accidents involving reef damage—for instance, the Great Barrier Reef.

You have mentioned oil spills. You have not mentioned actual physical damage to a reef in either the initial impact or the retrieval of the vessel.

Mr Alchin—This will apply if there is such an incident, but I stress that it does not provide for liability. It only allows a shipowner to limit liability if a court finds that the shipowner has been negligent and is therefore liable to pay damages. If a ship is going up the Barrier Reef and goes off course and runs into the reef, there is no what is called strict liability applying.

Mr HAASE—This is a treaty to cap liability in particular circumstances. Correct?

Mr Alchin—Yes, in just about all circumstances.

Mr HAASE—Is damage to a coral reef one of the circumstances it is able to cap liability in?

Mr Alchin—Yes.

Senator TCHEN—This convention limits the liability under domestic laws?

Mr Alchin—Yes, that is it. If we apply it, it limits the liability.

Senator TCHEN—In the case of the Malaysian ship, for example, that recently ran off course on the Barrier Reef, the Australian authority will take that owner and various people responsible to court and establish liability.

Mr Alchin—Yes.

Senator TCHEN—And the liability in monetary terms will be limited by this convention.

Mr Alchin—That is correct. I might add that there is nothing to stop the shipowner from paying more than the liability is. It is just that their legal entitlement is to pay only up as far as that liability limit.

Senator TCHEN—It just seemed to me that I was looking at the tables of liability limits and unit accounts, and I did a quick calculation of it. If a cargo ship of, say, 70,000 tonnes, which is rather large, I suppose—let's say 30,000 tonnes—or a container carrier ran aground and caused damage, under the current situation I think the limited liability under the 1996 protocol will be in the order of under $40 million.

Mr Alchin—Yes, if it is a 30,000-tonne ship, the actual limit—I checked the values of the SDRs on Saturday—

Senator TCHEN—Yes, the SDRs—

Mr Alchin—Actually for a 30,000 tonne ship which actually goes aground, the liability currently is around about $12 million.

Senator TCHEN—Which is only a fraction of the cost of the ship.

Mr Alchin—Yes, but if this convention, protocol, is adopted, it will take it up to about $29 million.

Senator TCHEN—Still only a fraction of the cost of the ship.

Mr Alchin—Only a fraction, yes, but, as I said, the rationale for this is to have some sort of trade-off, because if there is no liability limit a shipowner may not be able to obtain insurance cover for unlimited liability. That is the rationale for liability, and it is recognised that the current liability limits are low and they need to be increased by adopting this protocol.

Senator TCHEN—You said, Mr Alchin, that a number of other types of accidents have been covered by other conventions, like oil at sea.

Mr Alchin—Yes.

Senator TCHEN—What about other toxic chemicals spilling?

Mr Alchin—No. There is a convention on hazardous and noxious substances, which Australia is not yet a party to. It is one of the matters that is being considered at the moment. There has been some consideration of that, but I think it might be some time before Australia becomes a party to that, if they do become a party, but until they become a party this convention limits the liability. If the hazardous or noxious substances convention is adopted there will be a strict liability regime, which means that there is no need to prove somebody was negligent.

Senator TCHEN—Yes, I see. What is the impact of Australia failing to accept it? I am sorry, we are already in the convention, aren't we?

Mr Alchin—Yes.

Senator TCHEN—What happens if we fail to ratify this amendment of the convention?

Mr Alchin—Basically it means that the amount that is available to claimants, if there is an accident, will not be as high as it might be otherwise. However, I suppose I should add to that. There is only one case of which I am aware where the existing liability limits have been exceeded. The *Iron Baron* went aground in the Tamar River in 1995. It was operated by BHP Transport, and even though the cost of clean-up exceeded the liability limited, they paid the whole lot, even though they were not obliged to do so.

Senator TCHEN—So a country's ability to I suppose extract liabilities out of a shipowner depends on whether that country is a party to this convention?

Mr Alchin—No. If a country is not a party to the convention, it depends on whatever their domestic laws are, and the US, for example, generally speaking has no liability limits. The US is not a party to the 1996 convention.

Senator TCHEN—It might even be in fact advantageous not to sign this convention?

Mr Alchin—Are you suggesting not sign the protocol or not—

Senator TCHEN—Yes.

Mr Alchin—This is a decision for the government but to me it seems that by increasing the liability limits you provide better protection in case of an accident—you are more likely to have things cleaned up, if that is an oil spill, for example.

Senator TCHEN—Yes, but, from the Australian courts' ability to impose greater penalty point of view, more can be achieved by Australia withdrawing from this convention altogether, a la America. Is that right?

Mr Alchin—I do not know if I could offer an opinion on that.

Senator TCHEN—Because basically by signing the convention Australia imposes a self-imposed limit on what penalty we can levy on the shipowners, and you said that the United States in fact never signed this convention, therefore they are not bound by this convention.

Mr Alchin—That is right.

Senator TCHEN—It seems to me we are in the situation where you do not sign this convention. If you do not act as a good international citizen, if you like, you actually can protect your rights better.

Mr Alchin—One of the thoughts is that if we are not parties to the convention, a lot of shipowners will decide they are not going to come to Australia. I think the United States, being such a big country, can almost set their own rules, whereas Australia being a party to this convention is being a party to a convention to which quite a number of other countries are parties, but excluding the United States, of course. The shipowners are able to obtain their insurance, and they have the same sort of rules applying to them when they come to Australia as when they travel to most other countries.

Senator TCHEN—It seems it might be a very good ground on which to look at promoting the Australian shipping industry. Thank you. That is probably drawing too long a bow.

Mrs DE-ANNE KELLY—I have some minor questions; then I would like to turn to the point that Senator Tchen has raised. You mention on page 81 that there is a minor increase in insurance costs and, while it is understandable that you cannot quantify that, in rough terms what do you see as minor—five per cent, 10 per cent?

Mr Alchin—I could not even quantify that. In some cases there may not be any increase in insurance costs at all, because ships have insurance with what they call P and I clubs. They have a big policy which covers the whole lot of all the things, including what they call hull insurance, which is the ship itself, and for all the other things that are on the ship. I would be surprised if it was any more than one per cent, if that, but I suggest that for a lot of ships there will not be any increase at all.

Mrs DE-ANNE KELLY—So we are looking something relatively insignificant.

Mr Alchin—Also given the fact that, as I said, it is really looking at the potential which must be covered, but it is almost like the insurance that we have. Individuals have their house insurance. You have a $10 million liability insurance. It is pretty high, but even if that increased to $20 million, your house insurance is not going to go up by very much at all.

Mrs DE-ANNE KELLY—Page 80, the claims in respect of other loss resulting from infringements: does this cover vessels from other countries illegally in Australia?

Mr Alchin—It would, yes.

Mrs DE-ANNE KELLY—I remember the saga of the patagonian pursuit, which was successful, but do those sort of matters come under this particular protocol?

Mr Alchin—I think the thing to distinguish, too, is that we are not looking at criminal penalties. It does not apply to criminal penalties, but it applies to any seagoing ships, so I would assume it applies to a ship here, whether it is here operating legally or illegally.

Mrs DE-ANNE KELLY—Thank you. Looking at the size of vessels, on page 79, the table for liability limit, a vessel of 500 tonnes or less under the previous convention was up to about 333,000 units of account, which roughly is about $A700,000. We are now looking at $5 million. Does this apply to very small commercial vessels? I am thinking of a lot of the bareboat charters and so on, on the Barrier Reef in my area. Are they going to come in the ambit of this?

Mr Alchin—Yes, if it is in the definition of a seagoing ship. This is not confined just to trading ships; it applies to all ships.

Mrs DE-ANNE KELLY—Have you consulted with those very small commercial vessels? Remember, we are only talking about vessels that have two people on them and they take them out for charter or have a skipper on them. Have you consulted with the bareboat charter association as to how they see this?

Mr Alchin—We did not consult specifically with them.

Mrs DE-ANNE KELLY—That is a fairly big concern because there are thousands of those Australian boats; there are very small private businesses up and down the Queensland coast. I would have thought they were particularly vulnerable and that their input would be helpful, bearing in mind they are our people and we like to know what they think. Could I suggest that perhaps some consultation with those smaller commercial boat owners might be useful? I am sure there are others in other states of Australia that have small, tourist type operations. They are not in excess of 70,000 tonnes. They are not hauling oil or anything.

Mr Alchin—The main consultation we did was with the state transport authorities, with the expectation that, given that these sorts of ships come under state jurisdiction, the state transport authorities would consult with them separately.

Mrs DE-ANNE KELLY—One would hope so but I certainly have not had any feedback from my bareboat charter associations with regard to this. It would be useful to make sure that we have covered those small commercial operators. Following on from Senator Tchen's question, am I to understand that an American vessel in Australian waters that incurs some loss of life or injury to an Australian is, therefore, liable to these limits?

Mr Alchin—Yes.

Mrs DE-ANNE KELLY—A vessel in Australian waters?

Mr Alchin—Yes, it is a vessel in Australian waters.

Mrs DE-ANNE KELLY—But an Australian vessel in American waters under the same circumstance has no limit on their liability. Is that correct?

Mr Alchin—That is right.

Mrs DE-ANNE KELLY—It is a bit tough, isn't it?

Mr Alchin—Yes.

Mrs DE-ANNE KELLY—Is that the price you pay for being one of the small kids on the block?

Mr Alchin—It is the price you pay for trading with the US.

Mrs DE-ANNE KELLY—I might ask Mr Scott from the Department of Foreign Affairs and Trade how the department sees that anomaly.

Mr Scott—I would need to consult with the trade divisions and would be glad to do so. But, as pointed out in the national interest analysis, there is, in adopting liability limits, a trade-off between the interests of commercial traders, both from Australia and to Australia, to ensure that their operations are financially viable by not incurring excessive insurance costs in order to operate, while by the same token ensuring that Australian interests that may be damaged by shipping in Australian waters do incur higher penalties than there are currently under the 1976 arrangement.

Although there is the fact that Australian shipping trading in the United States is going to be subject to higher costs because of the higher liability possibilities, that is balanced by the fact that their operating costs elsewhere in the world will be reduced by the existence of liability limits. There is a recognition that there is a trade-off of interests. I would be more than happy to consult with our marketing and trade people in the department to see what impact they think the operation of such insurance factors and liability limits have on Australia's trading performance in other countries, including countries not party to these instruments.

Mrs DE-ANNE KELLY—Thank you. I look forward to receiving that. I have no further questions, thank you, Chair.

ACTING CHAIR—The situation is that, if you have a rust bucket owned by a foreign country that lurches into the Great Barrier Reef and does awful damage there, the owners are liable for up to $40 million if we sign this. Then after that the Australian taxpayer has to take up the slack.

Mr Alchin—Yes.

ACTING CHAIR—How many Australian vessels trade overseas?

Mr Alchin—I do not know off the top of my head but I think it would only be of the order of about 15 to 20.

ACTING CHAIR—So we only have 15?

Mr Alchin—At the max.

ACTING CHAIR—That is at the highest.

Mr Alchin—Yes, in international trade.

ACTING CHAIR—Has Japan signed up?

Mr Alchin—Yes. Japan is a signatory.

ACTING CHAIR—And the European Union?

Mr Alchin—Not as such, but a lot of European countries separately are parties. France, for example, is a party.

ACTING CHAIR—How many people go on the passenger boats?

Mr Alchin—You would have some hundreds of passengers. The liability limit under the current convention is capped at 25 million units of account, which works at about $60 million, and it does not go any further. That is for 536 passengers but under the protocol there will be no set cap, so it will just keep on going. It will be roughly, in dollar terms, about $423,000 per passenger.

ACTING CHAIR—Again, if you had people severely injured, the Australian taxpayer would have to pick up the slack. For 423,000 people seriously injured, it is not very much.

Mr Alchin—The other thing is that the passengers may have their own separate personal accident insurance. I do not know how that interacts with these sorts of limits. There is a further convention at IMO relating to passenger liability, called the Athens convention, which Australia is not a party to. The reason we are not a party is that the limits are too low. Australia is working actively in the International Maritime Organisation to try and increase liability.

ACTING CHAIR—Have investigations been done into what the big insurers say? I suppose Lloyds would be the natural one you would think about. What does it say?

Mr Alchin—In respect of what?

ACTING CHAIR—The only reason that has been advanced for these limits is that the insurers might not pick up the tab.

Mr Alchin—Yes. At legal committees of the International Maritime Organisation the international group of P and I clubs that represent the marine insurers have observer status but are fairly active in having input. They are very much opposed to the idea of unlimited liability. Whether they would actually offer cover, I am not sure.

ACTING CHAIR—The way it is coming across is that clearly a catastrophic shipping accident can incur a lot of liability to the owners, but it seems that what we as a government and other governments around the world have said is, 'Look, the insurers have said that this is all too much to bear. Therefore, we'll cap the amount at a very limited level.' I do not want you to comment on the policy, but is that a fairly accurate description of what has happened?

Mr Alchin—Yes because they think that, without a limit, insurance will not be available. This is something that has been around since the 1700s.

ACTING CHAIR—I understand that. But you have self-insurers in the domestic system that seem to be able to cope. I would imagine there would be a fair deal of money made by shipping interests.

Mr Alchin—If you compare it with the domestic things. I think the more suitable one to compare it with is the airline industry. Again, they have similar liabilities and limits on their liabilities.

ACTING CHAIR—I suppose that is right. But if you take them both—the shipping and the airlines—they can be as negligent as you like, grossly negligent, criminally negligent, and they give somebody who has been devastatingly affected—made a paraplegic or quadriplegic—$400,000 or $500,000.

Mr Alchin—Yes, that is effectively the same. But as well as the civil penalties they will be subject to criminal proceedings.

ACTING CHAIR—If you are a quadriplegic you do not care terribly much whether they are criminally proceeded against or not.

Mr Alchin—No, but what I am suggesting is that being liable for criminal proceedings might make people a little bit more careful.

ACTING CHAIR—But, as you say, that policy was argued in 1991 and this is an increase in the liability.

Mr Alchin—Yes, we want to increase the liability limits.

ACTING CHAIR—Thanks very much, Mr Alchin.

[10.54 a.m.]

BAKER, Mr Geoffrey Barrington, Assistant Director, Wildlife Scientific Advice, Wildlife Australia, Natural Heritage Division, Environment Australia

BAMSEY, Mr Howard Percival, Deputy Secretary, Environment Australia

MONTGOMERY, Ms Narelle Gaye, Assistant Director, Wildlife Australia, Environment Australia

LAING, Mr Douglas Alan, Executive Officer, Environment Branch, Department of Foreign Affairs and Trade

SCOTT, Mr Peter Guinn, Acting Director, International Law Section, Legal Branch, Department of Foreign Affairs and Trade

BOUWHUIS, Mr Stephen, Principal Legal Officer, Attorney-General's Department

DRYNAN, Mr Michael, Project Manager, Strategies for Sustainable Fisheries and Resource Access, Department of Agriculture, Fisheries and Forestry—Australia

McNEE, Mr Andrew, Senior Manager, Tuna and Billfish Fisheries, Australian Fisheries Management Authority

Agreement on the conservation of Albatrosses and Petrels

ACTING CHAIR—We will now move to the Agreement on the Conservation of Albatrosses and Petrels. I welcome the witnesses to this hearing. Do you have any comments to make on the capacity in which you appear?

Mr Baker—Yes. I work in the wildlife scientific advice section in Environment Australia and I am here to talk about specifically albatross and petrel biological information.

Mr Laing—I have worked in close consultation with the departments of the Environment and Heritage, and Agriculture, Fisheries and Forestry in relation to this agreement over quite a considerable period of time.

ACTING CHAIR—Thank you.

Mr Bamsey—We are very pleased to appear at this second hearing of the committee on this agreement. I am also pleased to report for the committee's information that the agreement was signed by seven countries, including Australia, here in Parliament House on 19 June. Our opening statement of 4 June outlined a number of issues about ratification of the agreement, including the obligations that Australia has, the domestic measures that we already have in place, benefits of ratification of the agreement, and resourcing and consultation issues as well.

I do not propose to revisit these issues in our presentation today because at the conclusion of the first hearing the committee requested further detailed information on a number of subjects, including species and range state information, as well as an indication of the likely effects of the agreement on the Australian fishing industry. I would like to address that particular issue first, if I may. The agreement does not contain any additional measures which Australia is not already an undertaking in its fishing industry. Australia already has strong conservation measures in place to address threats to albatrosses and petrels, both on land and at sea. Indeed, throughout the development of this agreement Australia's fishing industry has been very supportive, believing that the agreement to some extent provides an opportunity to create a level playing field in the management of seabird by-catch in long-line fisheries around the world.

It was heartening to see the level of support shown by our fishing industry at the signing ceremony for the agreement last week, at the same time that non-government conservation organisations demonstrated continuing enthusiasm for the finalisation and implementation of this instrument. To address the committee's remaining requests for information, we have prepared a presentation that will outline details of the species covered by the agreement, as well as the identified range states of the agreement. Mr Baker will present details associated with each species and Ms Montgomery will follow on and address the range state issue. I understand that committee members have been provided with a copy of the presentation—the overheads—as well, and you will see that the information that we have prepared is really quite extensive. I will ask my colleague Mr Baker, with your permission, Chairman, to commence his presentation.

Mr Baker—Today I will present information on the population numbers and movement of migration for all species of albatrosses and petrels which are covered by the Agreement on the Conservation of Albatrosses and Petrels. There are 28 species involved here. As Mr Bamsey has said, the presentation material we have here is extensive and I am not sure how much of this you would like me to speak to. What I propose to do is perhaps provide an introduction on how I have put this material together and then run through a couple of species. If you feel I have too much detail, please let me know at any stage.

The information provided has been drawn from a review of the available literature and is summarised on the overheads we will present. It is important to note that the data is limited for many species of albatrosses and petrels and this is one of the areas which the agreement seeks to address. Most seabird breeding colonies are in remote and inhospitable localities and many are visited infrequently. As a result, information for many breeding colonies of albatrosses and petrels is not precise. Only about half of the known breeding colonies are well studied. Not all species are annual breeders, with some—the biennial breeders—only being capable of laying an egg and rearing a chick every two years.

It is also important to realise that annual fluctuations may occur in the size of an albatross or petrel breeding population, particularly in the case of the biennial breeding species. Hence, the information provided on the number of breeding pairs represents the best estimate available at this time. As albatrosses and petrels often do not breed until they are seven or eight years of age, or even older, there are also a number of non-breeding birds present in a population. It is difficult to estimate the size of this component of the species' total population as these non-breeding birds are at sea and do not return to land where they can be more easily counted.

Therefore, whilst I have provided estimates of total population size for each species, you should be aware of the difficulty in determining these estimates.

The threats listed for each species represent the major threats for that species. In many cases, there are often other threats of a lesser nature which may impact on one colony but not on the species as a whole. I have not attempted to deal with these today, although another purpose of the agreement will be to gather information and assess the seriousness of all threats to populations.

Distributional and movement data are also presented. This has been derived by records of birds seen at sea, through the recovery of banded birds and through satellite tracking studies. While satellite tracking studies provide perhaps the most accurate data on movements for species of seabirds, the use of this technology is extremely expensive and, consequently, to date has been employed in only a few species.

The conservation status for all the world's birds and many other organisms is based upon a classification of threat process which has been developed by the International Union for the Conservation of Nature and Natural Resources, IUCN. The classes of threat recognised by the IUCN, in decreasing order of threat status, are: extinct, critically endangered, endangered, vulnerable, lower risk near threatened and lower risk least concerned, which is the IUCN's way of saying that a species is not actually at risk. I will provide information on both the global assessments of the species' conservation status and the species' conservation status in Australia, but firstly I will turn to the species that are covered by the agreement.

The Wandering Albatross breeds at five major colonies: South Georgia in the southern Atlantic Ocean; and Crozet, Kerguelen, Marion and Prince Edward islands in the southern Indian Ocean. There is also a tiny population which breeds on Macquarie Island. The species is a biennial breeder. Most eggs are laid between December and February and, after being incubated for 11 weeks, chicks hatch in March to April and they fledge 40 weeks later, between November and February. The annual breeding population is estimated at 8½ thousand pairs, representing about 28,000 mature individuals and perhaps 55,000 birds in total. Most Wandering Albatrosses breed in the South African sector, with the Marion Island and Prince Edward Island populations accounting for 36 per cent of the global population.

Both the domestic and global conservation status of the species is assessed as being vulnerable. Three breeding populations are thought to be increasing, four are decreasing and one is stable. The tiny Macquarie Island population is currently stable, after previous declines, currently with 10 pairs breeding annually. The rates of population decrease vary according to populations and the time frame over which changes have been assessed. The Crozet Island's population has decreased by over 50 per cent over the last two decades, compared to the 28 per cent population decrease documented for the South Georgia population since the early 1960s.

A major factor affecting the species is mortality associated with commercial fishing operations, particularly long-lining. Whilst other fishing operations, such as trawling and dropline fishing, also impact on this species, the extent of mortality is much less than that associated with long-lining. Long-line fishing does not affect Wandering Albatrosses equally across their range, because different populations have different foraging distributions, and this

affects the extent of overlap with fisheries. The South Georgia population in the southern Atlantic Ocean may be most at risk from long-line fishing throughout the southern sectors of the Atlantic, Indian and Pacific oceans, whereas the Crozet population is more vulnerable to fishing operations within the Indian Ocean and Australasian region. The vulnerability of Wandering Albatrosses to long-line fishing may also differ with populations as a result of specific migration patterns during the breeding season, and by birds of different sex, age and breeding status.

This overhead shows satellite tracks for three males which were breeding in the Crozets. These birds generally followed a looping course from their breeding site, ranging in all directions, as far as the Antarctic continent to the south, the subtropical waters to the north and Heard Island to the east. Here we have another three tracks for breeding birds from the Crozets. All these birds were incubating eggs at the time. Track 1 shows a male which forages in the Antarctic waters. Track 2 depicts a female which foraged to the north in tropical waters. Track 3 shows a male which travelled directly to the Kerguelen continental shelf, where it concentrated on its feeding activities before returning to its nest.

After breeding, Crozet birds migrate to their favoured long-haul destinations, where they spend a well-earned sabbatical rest. It has been shown by banding returns and satellite tracking that during the non-breeding periods Wandering Albatrosses leave their breeding grounds to head for specific individual oceanic sectors and spend the rest of the year there. This overhead shows the movements of one bird which foraged for months off the south coast of New South Wales and into the Tasman Sea when it was not breeding and which then flew back across the Indian Ocean to breed in the Crozets.

There is also good information on the movements of Wandering Albatrosses which breed at South Georgia. The dots on this overhead show uplinks from satellite tracked birds. Unlike the Crozet birds, there are many similarities in the foraging areas of both sexes when they are breeding. Males are shown here foraging mainly to the north of South Georgia, ranging as far north as the waters off southern Brazil. Unlike females, some males also forage in the Antarctic waters of the south-western Antarctic Peninsula. For most birds, important destinations for their foraging trips were the coastal shelf slopes of South America and the Patagonian Shelf around the Falkland Islands.

Here we see uplinks for females from South Georgia. Note that no birds visited the Antarctic Peninsula, in comparison to the males we saw a minute ago. Here we see band recoveries for 57 Wandering Albatrosses which were banded at South Georgia. Over 60 per cent of these birds were recovered from the South Atlantic, chiefly off the coasts of Brazil, Uruguay and northern Argentina, with a few from Chile and the Falkland Islands. The remaining recoveries are from the Indian Ocean, the Tasman Sea and the southern Pacific Ocean. Here we have a track of a female Wandering Albatross which had finished breeding activities at South Georgia. This bird travelled 25,000 kilometres in 36 days and it was located off the Western Australian coast before the transmitter failed or fell off the bird.

I will now discuss the Shy Albatross, which is Australia's only endemic species of albatross. This species breeds on three islands located near Tasmania: Albatross Island in Bass Strait and the Mewstone and Pedra Branca, which are located off southern Tasmania. Shy Albatrosses are annual breeders. Most eggs are laid in September, they hatch in December and chicks fledge in

April. Adults attend colonies in winter between breeding seasons. The breeding population is estimated at about 12,000 breeding pairs, which equates to about 55,000 to 60,000 individuals. The conservation status of this species is assessed as being vulnerable, both within Australia and globally.

Population estimates for this species are of moderate accuracy only, except for the Albatross Island colony in Bass Strait. This colony is showing signs of a slow recovery following the devastation caused by feather and egg collectors at the turn of the 20th century. The current population level on Albatross Island, which is 5,000 pairs, constitutes about 25 per cent of the estimated 20,000 pairs which bred there until the population size was reduced to only 300 pairs in 1909. The trends of the Mewstone and Pedra Branca populations are unknown.

The major threat facing Shy Albatrosses is incidental mortality associated with fishing operations. In Australia, Shy Albatrosses constituted over 10 per cent of the seabird by-catch on Japanese tuna long-lines, and most of these were adult birds. Similar levels of by-catch are likely to exist within the domestic tuna fishery, although data are lacking for this fishery. Based on assessments of foraging ranges as determined from satellite tracking and fishing effort, it is likely that these birds are from the southern Tasmanian populations. Three populations are differentially vulnerable as a result of their differences in foraging zones, the southern populations being vulnerable throughout their annual cycle.

Proposals to increase the commercial squid fishery in Bass Strait within the foraging ranges of the Albatross Island population may also pose a threat. Direct competition for common prey may affect the birds if squid quotas increase with no regard to the food requirements of albatrosses. Other threats include a viral disease which is known to reduce productivity rates during some years for the Albatross Island colony.

ACTING CHAIR—Would you be prepared to answer questions as we go along?

Mr Baker—Quite happy to do that.

ACTING CHAIR—Does anybody have any questions in particular about this one, because this is in Australia's waters, or about any other matter?

Mr HAASE—I am just impressed with the detail that the group has brought before this committee and I would commend them for doing that. I recommend that this be tabled for the committee's benefit and that we go on to general questions and save everyone time.

ACTING CHAIR—Would like to ask some general questions?

Mr HAASE—General questions, if they be forthcoming, and allow this to be incorporated. It would certainly allow time for that. I think the description of the map detail that is going to be contained in the written evidence being provided will be ample to indicate that we have a wealth of information in that form.

ACTING CHAIR—I agree. I think this is quite an outstanding presentation. Is it the wish of the committee that the document be incorporated in the transcript of evidence? There being no objection, it is so ordered.

The document read as follows—

ALBATROSS AND PETREL POPULATIONS: STATUS, THREATS AND MOVEMENTS

Presentation to JSCOT june 2001

Today I will present information on the population numbers and movement and migration for all species of albatrosses and petrels covered by the Agreement on the Conservation of Albatrosses and Petrels, of which there are 28 species.

The information provided today has been drawn from a review of the available literature, and is summarised on the overheads we will present. It is important to note that data is limited for many species of albatross and petrels, and this is one of the areas which the Agreement seeks to address. Most seabird breeding colonies are in remote and inhospitable localities and many are visited infrequently. As a result, information for many breeding colonies of albatrosses and petrels is imprecise. Only about half of the known breeding colonies are well studied. Not all species are annual breeders, with some, the biennial breeders, only being capable of laying an egg and rearing a chick every two years. It is also important to realise that annual fluctuations may occur in the size of an albatross or petrel breeding population, particularly in the case for the biennial-breeding species. Hence the information provided on the number of breeding pairs represents the best estimate available at this time. As albatrosses and petrels often don't breed until they are 7 or 8 years of age, or even older, there are also a number of non-breeding birds present in a population. It is difficult to estimate the size of this component of a species' total population, as these non-breeding birds are at sea and don't return to land where they can be more easily counted. Therefore, whilst I have provided estimates of total population size for each species, you should be aware of the difficulties in determining these estimates.

The threats listed for each species represent the major threats for that species. In many case there are often other threats of a lesser nature impacting on one colony but not the species as a whole. We have not attempted to deal with these today, although another purpose of the Agreement will be to gather information and assess the seriousness of all threats to populations.

Distributional and movement data is also presented. This has been derived by records of birds seen at sea, through the recovery of banded birds, and through satellite tracking studies. Whilst satellite tracking studies provide perhaps the most accurate data on movements of birds, the use of this technology is extremely expensive and consequently, to date, has been employed on a few species.

SLIDE 1

The Conservation status for all the world's birds and many other organisms is based upon a classification of threat process developed by the International Union for Conservation of Nature and Natural Resources. The classes of threat recognised by the IUCN, in decreasing order of threat status are:

Extinct

CR

En

Vu

Lower risk Near Threatened; and

Lower risk Least Concern

I will provide information on both the global assessment of a species conservation status, as well as the species' conservation status in Australia.

I will now turn to the species covered by the Agreement.

SLIDE 2

The **Wandering Albatross** breeds at five major colonies - South Georgia (Isla Georgia del Sur) in the southern Atlantic Ocean; and Crozet, Kerguelen, Marion and Prince Edward Islands in the southern Indian Ocean. There is also a tiny population breeding population on Macquarie I.

The species is a biennial breeder. Most eggs are laid between December and February, and after being incubated for 11 weeks, chicks hatch in March-April and fledge 40 weeks later between November and February.

The annual breeding population is estimated at 8 500 pairs, representing about 28 000 mature individuals, and perhaps 55 000 birds in total. Most Wandering Albatrosses breed in the South African sector, with the Marion Island and Prince Edward Island populations accounting for 36% of the global population.

Both the domestic and global conservation status of the species is assessed as being Vulnerable. Three breeding populations are thought to be increasing, four are decreasing and one is stable. The tiny Macquarie Island population is currently stable after previous declines, currently with 10 pairs breeding annually.

The rates of population decrease vary according to population and the time frame over which changes have been assessed. The Crozet Islands population has decreased by over 50% over the last two decades, compared to the 28% population decrease documented for the South Georgia (Isla Georgia del Sur) population since the early 1960s.

The major factor affecting this species is mortality associated with commercial fishing operations, particularly longlining. Whilst other fishing operations such as trawling and

dropline fishing also impact on the species, the extent of mortality is much less than that associated with longline fishing.

Longline fishing does not affect Wandering Albatrosses equally across their range because different populations have different foraging distributions, and this affects the extent of overlap with fisheries. The South Georgia (Isla Georgia del Sur) population in the southern Atlantic Ocean may be most at risk from longline fishing operations throughout the southern sectors of the Atlantic, Indian and Pacific Oceans, whereas the Crozet population is more vulnerable to fishing operations within the Indian Ocean and Australian region. The vulnerability of Wandering Albatrosses to longline fishing may also differ within populations as a result of specific migration patterns during the breeding season and by birds of different sex, age and breeding status.

SLIDE 3

This overhead shows satellite tracks for three males breeding in the Crozets. These birds generally followed a looping course from their breeding site, ranging in all directions as far as the Antarctic continent to the south, the subtropical waters to the north and Heard Is to the east.

SLIDE 4

Here we have another three tracks for breeding birds from the Crozets. All these birds were incubating eggs at the time. Track 1 shows a male which foraged in Antarctic waters, Track 2 depicts a female which foraged to the north in tropical waters, and track 3 shows a male which travelled directly to the Kerguelen continental shelf where it concentrated its feeding activities before returning to its nest.

SLIDE 5

After breeding, Crozet birds migrate to their favoured long-haul destinations where they spend a well earned sabbatical rest. It has been shown by banding returns and satellite tracking, that during non-breeding periods, wandering albatrosses leave their breeding grounds to head for specific individual oceanic sectors and spend the rest of the year there. This overhead shows the movements of one bird which foraged for months off the south coast of NSW and into the Tasman Sea when not breeding, and then flew back across the Indian Ocean to breed in the Crozets.

SLIDE 6

There is also good information on the movements of Wandering Albatrosses which breed at South Georgia (Isla Georgia del Sur). The dots on this overhead show uplinks from satellite tracked birds. Unlike the Crozet birds, there are many similarities in the foraging areas of both sexes when they are breeding. Males are shown here foraging mainly to the north of South Georgia (Isla Georgia del Sur), ranging to as far north as the waters off southern Brazil. Unlike females, some males also foraged in Antarctic water of the southwestern Antarctic Peninsula. For most birds, important

destinations for their foraging trips were the coastal shelf-slope of South America and the Patagonian Shelf around the Falkland Is. (Islas Malvinas).

SLIDE 7

Here we see uplinks for females from South Georgia (Isla Georgia del Sur). Note that no birds visited the Antarctic peninsula, in comparison to the males we saw a minute ago.

SLIDE 8

Here we see band recoveries for 57 wandering albatrosses from South Georgia (Isla Georgia del Sur). Over 60% of these birds were recovered from the south Atlantic, chiefly off the coast of Brazil, Uruguay and northern Argentina, with a few from Chile and the Falkland Islands (Islas Malvinas). The remaining recoveries are from the Indian Ocean, the Tasman Sea and the southern Pacific Ocean.

SLIDE 9

Here we have a track of a female wandering albatross which had finished breeding activities at South Georgia (Isla Georgia del Sur). This bird travelled 25,000 km in 36 days, and was located off the Western Australian coast before the transmitter failed of fell off the bird.

SLIDE 10

SHY ALBATROSS *Thalassarche cauta*

This species is Endemic to Australia and breeds on three islands located near Tasmania. These islands are Albatross I., The Mewstone and Pedra Branca.

Shy albatrosses are annual breeders. Most eggs are laid in September, hatch in December and chicks fledge in April. Adults attend colonies in winter between breeding seasons.

Population Size

The breeding population is estimated at about 12 200 breeding pairs, equating to about 55 000 - 60 000 individuals.

The conservation status of the species is assessed as being Vulnerable, both within Australian and globally. Population estimates for this species are of moderate accuracy only, except for the Albatross Island colony in Bass Strait. This colony is showing signs of a slow recovery following the devastation caused by feather and egg collectors at the turn of the 20th Century. The current population level on Albatross Island (5 000 pairs) constitutes about 25% of the estimated 20,000 pairs which bred there until the

population size was reduced to only 300 pairs in 1909. The trends of the Mewstone and Pedra Branca populations are unknown.

The major threat facing Shy Albatrosses is incidental mortality associated with fishing operations. In Australia, Shy Albatrosses constituted over 10% of the seabird bycatch on Japanese tuna longlines and most of these were adult birds. Similar levels of bycatch are likely to exist within the domestic tuna fishery, although data is lacking from this fishery. Based on assessments of foraging ranges as determined from satellite tracking and fishing effort, it is likely that these birds are from the southern Tasmanian populations. The three populations are differentially vulnerable as a result of their differences in foraging zones: the southern populations being vulnerable throughout their annual cycle.

Proposals to increase the commercial squid fishery in Bass Strait, within the foraging ranges of the Albatross I. population, may also pose a threat. Direct competition for common prey may affect the birds if squid quotas increase with no regard to the food requirements of the albatrosses. Other threats include a viral disease which is known to reduce productivity rates during some years for the Albatross I. colony.

SLIDE 11

This transparency show the distribution of breeding birds from the Albatross Is colony when they are foraging at sea. Birds from this colony feed on inshore slopes in close proximity to their nests, and probably have minimal contact with longliners at this time.

SLIDE 12

Here we see the distribution of shy albatrosses which breed at one of the southern breeding colonies, The Mewstone. Again, birds feed on inshore slopes in close proximity to their nests, and in doing so, come in close contact with areas of intensive longline fishing.

SLIDE 13

Breeding birds at the Pedra Branca colony do the same, and also come into contact with longline vessels.

SLIDE 14

After breeding, birds from the Albatross Is. colony disperse further away from Albatross Is and into the Great Australian Bight, as shown on the stipled area of this overhead. Juveniles have been recovered as far away Western Australia, where they probably spend their first few years at sea.

SLIDE 15

Birds from Pedra Branca disperse up the east coast of Tasmania and the Australian mainland after finishing breeding. Band recoveries reveal that juveniles of the southern Tasmanian population migrate to waters off southern Africa where they probably spend their first couple of years. We have recently been made aware of huge numbers of Shy Albatrosses being caught on longlines being set in South African and Namibian waters, and it is most likely that these birds are from either one or both of these southern colonies.

SLIDE 16

BLACK-BROWED ALBATROSS *Thalassarche melanophrys*

The major breeding sites for this species are in the Falkland Is. (Islas Malvinas) and at South Georgia (Isla Georgia del Sur) in the southern Atlantic Ocean, where over 600,000 pairs breed each year. There are other smaller colonies in Chilean waters, and at the Crozet Is., Kerguelen Is., Heard and McDonald Is., Macquarie I., Bishop and Clerk Is. and in New Zealand.

The species is an annual breeder, with the timing of breeding varying with location, but generally extending from September to April.

This is the most abundant of the southern albatross species. The current population is approximately 680 000 breeding pairs, and perhaps three million birds in total. This species is most numerous at the Falkland Is. (Islas Malvinas) where 80% of the global population breeds. The smallest Black-browed Albatross populations occur on the Australian and New Zealand sub-antarctic islands.

SLIDE 17

Black-browed Albatrosses are the most widely distributed of all albatross species and their population status varies with respect to location of colony. The status of many of the smaller populations is not known, although current studies in both the Australian and New Zealand sectors should partially redress this situation. Whilst some colonies have shown signs of increases, low rates of adult survival and juvenile recruitment at the two most intensively studied populations, those at South Georgia (Isla Georgia del Sur). and Kerguelen I., are causing the populations to decline.

At present, this species in not considered to be threatened within Australia, but on a global scale it is assessed as being Near Threatened. The complex picture of the status of the various Black-browed Albatross populations is most likely a consequence of the differing degree of interactions between this species and various fishing operations.

SLIDE 18

During the breeding season, Black-browed Albatrosses forage in continental shelf waters and birds from different colonies within island breeding sites may frequent different regions of these shelf waters. Here we see uplinks from satellite-tracked

Black-browed albatrosses breeding at South Georgia (Isla Georgia del Sur). Birds do not forage far away from their nests when breeding.

SLIDE 19

Outside of the breeding season these birds travel to more distant shelf waters, and so interactions with fisheries depend on the concentration of fishing in each area. For example, the Hake longline fishery off the South African coast is most likely to affect Black-browed Albatrosses from South Georgia (Isla Georgia del Sur), whereas Black-browed Albatrosses from the Falkland Is. (Islas Malvinas) most likely interact with longline operations off the Patagonian shelf. The track shown here is of a Black-browed albatross which flew from South Georgia (Isla Georgia del Sur) to South Africa in 28 days, a distance of 16,000 km.

SLIDE 20

Here we see the distribution of recoveries of 280 banded Black-browed albatrosses from South Georgia (Isla Georgia del Sur). Most of these birds ended up around South Africa, but others were recovered in most sectors of the southern Indian Ocean, and along the east, west and southern coastline of Australia.

SLIDE 21

Here we see a few short foraging trips by Black-browed albatrosses breeding at Kerguelen Island in the Indian Ocean, when birds were rearing chicks. These trips lasted 2 days on average, and are typical short commuting trips used by this species. The birds were travelling from their breedings sites, which are arrowed, to the Kerguelen continental shelf break, with some birds commuting east to a small shelf north of Heard Island.

The use of different foraging grounds by the different populations may explain disparate trends in status between colonies. Birds from some colonies are afforded short-term gains by commuting to waters used by trawlers where they scavenge from discards, whereas birds from other colonies forage in areas heavily fished by longliners. Given the distribution of fishing effort in relation to the colonies of this species, and the local nature of the birds foraging during the breeding season, Black-browed Albatrosses may face the greatest threats from fisheries of any albatross species.

SLIDE 22

Longline fishing off Australia is known to kill Black-browed Albatrosses from Kerguelen and Macquarie Islands. Black-browed Albatrosses are one of the commonest species in the seabird bycatch off Australia, but band returns from Black-browed Albatrosses killed on longlines off Australia are restricted to birds from Kerguelen I. (popn decreasing) and Macquarie I., which is a tiny colony with an annual breeding population of 40 pairs).

There has been only one Black-browed Albatross tracked from the Macquarie Island population, which was breeding at the time. This track is shown in the far left of this overhead. Unlike breeding birds from Crozets and South Georgia (Isla Georgia del Sur), this bird was foraging well away from Macquarie Island, and headed due south of the island to the polar front, 1,000 km away. However, it would be premature to draw definitive conclusions about the general foraging strategies of this population at this stage.

SLIDE 23

GREY-HEADED ALBATROSSES *Diomedea chrysostoma*

The grey-headed albatross breeds at eight major locations, the largest colonies being at South Georgia (Isla Georgia del Sur) in the southern Atlantic Ocean, and Diego Ramirez and Is. Ildefonso Islands in southern Chile. There are smaller colonies at Kerguelen, Crozet, Marion and Prince Edward Islands in the Indian Ocean, and at Campbell I., New Zealand. There is also a small colony of 80 pairs which breeds at Macquarie I.

Grey-headed albatrosses are biennial breeders . Most eggs are laid in October, hatch in December-January and chicks fledge in April-May. The global breeding population is estimated at 92 000 pairs each year, corresponding to approximately 250 000 mature individuals, and 600 000 individuals in total. The conservation status for this species is assessed as Vulnerable.

The status of the populations varies with breeding location. At South Georgia (Isla Georgia del Sur) over the last two decades, the population has decreased at an annual rate of nearly 2%, mainly as a result of decreases in both immature and adult survival. The decline of this population is alarming, particularly as the South Georgia (Isla Georgia del Sur) population represents nearly two thirds of the world's population. Decreases of 80% since the 1940s have also been observed for the Campbell Island population. The only population increase recorded is for the Marion Island population.

SLIDE 24

Grey-headed Albatrosses are vulnerable to deaths associated with fishing practices, particularly longlining. Of the longline fisheries, it is the pelagic rather than the shelf-slope fisheries which probably pose the greatest threat to this species.

The decrease in the Grey-headed Albatross population at Bird Island is most probably attributable to deaths of immatures on longlines. This is consistent with the predominance of immatures in the Grey-headed Albatross component of the seabird bycatch from Japanese tuna longlines operating off Australia and New Zealand.

Grey-headed Albatrosses are also hooked on longlines set in Kerguelen waters. The impacts of this mortality however is not known as the populations of this species in the French territories of Crozet and Kerguelen are not routinely monitored. Other threats include plastic ingestion, introduced predators at breeding sites and avian pox virus.

SLIDE 25

Here we see a track of a grey-headed albatross which had finished breeding at South Georgia (Isla Georgia del Sur). This bird travelled nearly 10 km in 18 days, ending up in the Pacific Ocean off the coast of Chile, after first travelling south to the Antarctic peninsula.

SLIDE 26

Here we see a series of satellite uplinks for grey-headed albatrosses breeding at South Georgia (Isla Georgia del Sur). During the breeding season, the overall geographic range of grey-headed albatrosses is similar to that of black-browed albatrosses from South Georgia (Isla Georgia del Sur). The main difference is that grey-headed albatrosses do not associate closely with the shelf breaks, but are more oceanic, indicative of a different lifestyle.

SLIDE 27

There have been 42 band recoveries of South Georgia (Isla Georgia del Sur) banded grey-headed albatrosses. These birds have been recovered principally recovered in Australian and New Zealand waters, with a few also in South Africa and from longliners operating in the southern Indian Ocean.

SLIDE 28

There is some limited satellite tracking information from the Macquarie Island population, as shown here with the three tracks marked GHA. Most feeding effort of these breeding birds was concentrated to the southeast and east of Macquarie Island in oceanic areas near frontal zones, particularly the Polar Frontal Zone to the south of the Campbell Plateau.

SLIDE 29

Lastly for this species, we show here a few tracks for birds breeding on Campbell Is. south of New Zealand. Again, these birds were foraging in frontal areas, and their at-sea foraging was not associated with shelf breaks.

SLIDE 30

LIGHT-MANTLED ALBATROSS *Phoebetria palpebrata*

This species breeds at ten breeding sites distributed between the southern Pacific, Atlantic and Indian Oceans. Within Australian waters, it breeds at Heard I. and Macquarie I.

It is a biennial breeder . Most eggs are laid in October-November, hatch in December-January and chicks fledge in May-June.

The breeding population is estimated at 21 600 pairs each year, with approximately 140 000 individuals in total. Accurate population estimates are available only for the Crozet Is. and Macquarie I. populations, each of which constitutes about 5% of the estimated global population.

SLIDE 31

Information on population trends and status is restricted to the small population in the Crozets. This population has decreased by 13% since 1980, but the demographic parameters influencing this change are not clear. In Australia, the Light-mantled albatross is considered to be Vulnerable, and on the global scale it is assessed as being Near Threatened.

Researchers have concluded that it is most likely that mortality associated with fishing activities constitutes the major threat to Light-mantled Albatrosses, although data are limited. Satellite tracking studies are few but indicate that interactions with longliners may be limited during the breeding season as a result of the southern distribution of the foraging grounds. However during the non-breeding periods, the birds move northwards and mix with pelagic fishing fleets. The proficiency of the diving behaviour of light-mantled albatrosses enhances their vulnerability to capture on longlines.

SLIDE 32

Tracks of three birds breeding on Macquarie Island and off-duty from incubating eggs are shown here. They foraged south of the Polar Front, in Antarctic pelagic waters and at an average distance from Macquarie Island of 1700 km.

SLIDE 33

TRISTAN ALBATROSS *Diomedea dabbenena*

The breeding distribution of the Tristan Albatross is essentially restricted to Gough I in the Tristan da Cunha group of islands in the south-east Atlantic. The species is a biennial breeder . There are no published studies of breeding ecology, but it is presumed that most eggs are laid between December and February and chicks fledge the following November to February.

The total breeding population is estimated at fewer than 2 000 pairs, suggesting that about 1 000 pairs breed in any one year and that there are perhaps 6 000 - 7 000 birds in the total global population.

Because of the small size of the population, and the fact that breeding is virtually confined to one site, the species is considered to be Endangered. As there are no data for the population on Gough Island, the status of this population is unknown, but it is likely that this population has decreased since the 1980s. Historically, Tristan Albatrosses also bred on the main island of the Tristan Group, but they were extirpated by humans in the early 1900s.

Human persecution of Tristan Albatrosses at the breeding sites has been largely (if not totally) eliminated. Whilst small plastic particles have been collected from regurgitates of Tristan Albatrosses on Gough Island, the most likely threat to this population comes from longline fishing.

SLIDE 34

Band returns confirm that Tristan Albatrosses are killed on longline hooks, and the foraging distribution of this species, which encompasses the South Atlantic Ocean and coastal regions of Southern Africa, place the species in contact with numerous longline fleets. Knowledge of the population status of this species and extent of fishing-related mortalities is urgently required.

SLIDE 35

ANTIPODEAN ALBATROSS *Diomedea antipodensis*

Breeding in this species is restricted to Antipodes and Campbell Islands south of New Zealand. The species is a biennial breeder . Egg laying starts in January and chicks fledge between January and March the following year.

The annual breeding population is estimated at 5 200 pairs, indicating a global population of 17 000 adults, or 33 000 individuals. The species is essentially restricted to Antipodes Island, although about six pairs also breed on Campbell Island each year.

SLIDE 36

The only factor which has been identified as a threat to Antipodean Albatrosses is longline fishing. This species has been confirmed as being killed on longlines targeting tuna in New Zealand waters. Outside the breeding season, this species is known to migrate from New Zealand eastwards to Chile and the Patagonian shelf before returning to New Zealand sea mounts and the Tasman. The flights over the southern Pacific Ocean and Tasman Sea would put it in contact with oceanic longline fleets. The prolonged periods spent off the coast of Chile, an area where longline fishing effort is increasing, also presents a threat to individuals of this species.

SLIDE 37

GIBSON'S ALBATROSS *Diomedea gibsoni*

Gibson's Albatrosses is a biennial breeder . Most eggs are laid between December and January and chicks fledge the following year between January and February.

The annual breeding population of Gibson's Albatrosses is estimated at about 6 000 pairs breeding each year, perhaps 10 000 pairs in total, or 40 000 individuals. This species is restricted to breeding on three islands within the New Zealand sub-antarctic

Auckland Island group: Adams I. Contains 95% of the global population, with a few pairs breeding on Disappointment and Auckland I.

The Gibson's Albatross population on Adams Island was estimated as 13 000 pairs in the 1970s but inconsistent survey techniques preclude valid comparisons with more recent information. This population has been studied annually since 1991 so knowledge of recent population trends should soon be forthcoming.

On Auckland Island the effects of introduced pests, particularly cats and pigs, have the potential to limit the breeding success of Gibson's Albatrosses. The only other threat identified for the species is longline fishing. Gibson's Albatrosses were a significant bycatch species in the tuna longline fishery operating in New Zealand waters between 1988 and 1992, and this species is also killed on longline hooks deployed to catch tuna in the Australian region.

SLIDE 38

Satellite tracking studies have shown that Gibson's Albatrosses traverse areas over the Tasman sea and eastwards into the Pacific Ocean during the breeding season. Foraging areas used by males and females were mutually exclusive, with female birds frequenting the Tasman Sea in the vicinity of 40° S, whilst the males dispersed westwards at lower latitudes or, alternatively, travelled northeast towards the mid-Pacific Ocean. These differences, and the sex-specific adult survival rates (males being higher than females may not be coincidental. Continuing studies should clarify the role of longline fishing in the population and conservation status of Gibson's Albatrosses.

SLIDE 39

AMSTERDAM ALBATROSS *Diomedea amsterdamensis*

The Amsterdam Albatross breeds only on Amsterdam I. In the southern Indian Ocean. The total breeding population is 20 pairs, or perhaps 90 birds in total. A biennial breeder, most eggs are laid in February-March, chicks hatch in May and fledge in January-February of the following year.

Amsterdam Albatrosses are classified as critically endangered.

Subfossil records show that population was historically much larger, restriction of current population being caused by fire and habitat degradation by cattle, and probably by deaths associated with fishing activities. The impact of cattle is now restricted by exclusion fences, but predation by cats and rats remains a potential threat. The current population trend mirrors that of other Wandering Albatross populations in the Indian Ocean, and may have been similarly depleted by deaths on longline hooks set in proximity to the island during the 1970s and 1980s. Amsterdam Albatrosses were recorded as bycatch on longliners operating south of Tasmania in 1992. For this critically endangered species, any increase in mortality rates above natural levels would likely be catastrophic.

SLIDE 40

This overhead shows the distribution of the Amsterdam Albatross being restricted to the Indian Ocean.

SLIDE 41

SOUTHERN ROYAL ALBATROSS *Diomedea epomophora*

Southern Royal Albatrosses are biennial breeders which breed on 4 islands in the New Zealand. The annual breeding population is estimated as about 7 870 pairs, equivalent to a total breeding population of 13 000 pairs and 50 000 individuals in total. 99% of birds breed at Campbell Island, while the remaining three populations have about 50 pairs breeding each year.

Status

The status of Southern Royal albatrosses at Campbell Island is thought to be increasing but interpretation of counts is difficult due to inconsistent census efforts. The breeding population appears to be recovering from the effects of human predation during the sealing era, and the effects of burning and grazing during the farming era on Campbell Island.

The impacts associated with the sealing and farming periods on Campbell Island ceased in the 1930s. At sea, trawling operations are known to have killed Southern Royal Albatrosses, but this appears to have been mitigated on vessels where the use of netsonde monitor cables were abolished. Today, longlining represents the major threat to Southern Royal Albatrosses.

SLIDE 42

Southern Royal Albatrosses are known to have been caught on longlines in the South Atlantic Ocean, the Indian Ocean and in the Australian Fishing Zone (AFZ; Gales 1993 and references therein). All banded Southern Royal Albatrosses caught in the AFZ are from Campbell Island. The species has a circumpolar dispersal following breeding, with birds feeding off Chile before returning to breed via the south Atlantic and Indian Oceans.

SLIDE 43

NORTHERN ROYAL ALBATROSS *Diomedea sanfordi*

The Northern Royal Albatross breeds in the Chatham Is, with a small colony also occuring at Taiaroa Head near Otago in New Zealand. The annual breeding population is estimated at about 5 200 pairs, equivalent to a total breeding population of 8 500 pairs, and perhaps 34 000 individuals in total. The Chatham Islands population

accounts for > 99% of the population, with 20 pairs breeding at Taiaroa Head each year.

Northern Royal Albatrosses are biennial breeders. The full breeding cycle usually extends from November in one year to September in the following year.

In the past, harvesting by humans has affected the Northern Royal Albatrosses on the Chatham Islands and though now illegal, small-scale harvesting of chicks is still thought to occur. The current population decrease of this population however is thought to be mainly a result of nesting habitat degradation following severe storms in the 1980s. The effects of climatic changes and perturbations, which result in changes to the nesting habitat either through drying out or storm damage, are likely to have a significant effect on the status of this species for many years to come.

SLIDE 44

Fishing operations also affect Northern Royal Albatrosses. These birds are caught on longlines in the waters off southern and their extensive oceanic distribution, which is similar to the Southern Royal Albatross, exposes them to interactions with an array of longline operations. Fishing-related mortality at sea, whilst perhaps not the primary threat to this species, serves to hasten the decrease of the population.

SLIDE 45

WAVED ALBATROSS *Phoebastria irrorata*

Waved albatrosses breed in the Galapagos Is., and in Ecuador.

They are an annual breeding species, with most eggs laid in May, and chicks fledging in December.

The breeding population is estimated at 15 590 pairs, or 70 000 birds in total.

The Waved albatross is classified as Near Threatened.

Mass abandonment of colonies and loss of eggs through egg rolling contribute to breeding failures (egg rolling behaviour occurs when no nesting material is available and is thought to result from thermal stress. The introduction of goats in the past may have had an indirect impact due to vegetation destruction and thermal exposure of the nest sites. Goats have since been removed from the Galapagos colony.

SLIDE 46

It is not known if Waved Albatrosses have been caught on longline hooks as there have been no observations aboard fishing vessels in areas frequented by the birds. From satellite tracking studies it is clear that there is overlap between longline activities

and the foraging areas of the birds of the coast of Peru, but observations suggest that Waved Albatrosses do not readily follow boats.

SLIDE 47

Both legal and illegal longline fishing efforts for tuna and other pelagic fish have increased in the waters surrounding the Galapagos Islands and off Peru, and overlap with the at-sea distribution of waved albatrosses, as depicted in this overhead.

SLIDE 48

WHITE-CAPPED ALBATROSS *Thalassarche steadi*

This species breeds on four islands in New Zealand waters. It is poorly known as there have been no detailed studies. Egg laying starts in mid-November, and young fledge in mid-August. It is likely to breed annually. No data are available on breeding success, survival or recruitment for this species.

The breeding population is estimated at 75 000 breeding pairs, or approximately 350 000 individuals in total.

The main threats appear to be introduced predators and interactions with fisheries. On Auckland Island habitat destruction by feral pigs has led to some reduction in nesting area, at least in the past. At sea, the major threat facing White-capped Albatrosses is incidental mortality associated with fishing operations. In New Zealand waters White-capped Albatrosses constituted 85% of the bycatch associated with squid trawlers. This level of bycatch was not sustainable and has since been reduced by the changes to fishing gear in the local NZ fishery. White-capped Albatrosses are also known to be killed on bluefin tuna longlines in New Zealand waters, but due to difficulty in distinguishing this species from Australia's Shy Albatrosses, assessment of the extent and magnitude of bycatch in other areas is problematical. This confusion also impedes our understanding of the distribution of this species at sea, but it is possible that some birds may migrate to South African waters.

SLIDE 49

SALVIN'S ALBATROSS *Thalassarche salvini*

Essentially breeds on the Snares and Bounty Is. in New Zealand. Penguin I. A tiny colony discovered on the Crozet Islands a few years ago now appears to be extinct.

No detailed studies are available for this species, but Salvin's albatross is assumed to be an annual breeder. Eggs hatch at the Bounty Islands in mid-November, so laying presumed to occur in early October. Chicks fledge in late March to early April.

The breeding population is estimated at 76 500 breeding pairs, or 350 000 individuals, and the species is considered to be Vulnerable in both Australia and globally.

There is no information regarding the threats faced by this species, either on land or at sea.

SLIDE 50

The extensive marine distribution of this species (extending north to 5° S in the Humboldt Current, and also in the Indian Ocean and off the coasts of Australia and South Africa, would place the species potentially at risk from both tropical and temperate longline operations. On the Pacific coast of South America, Salvin's Albatrosses concentrate over the continental slope region, their distribution coinciding with that of a developing longline fishery.

SLIDE 51

CHATHAM ALBATROSS *Thalassarche eremita*

Breeding in this species is confined to the The Pyramid, an island in the Chatham Is. group, New Zealand. Based on aerial photographs taken in 1972, the breeding population is estimated to be 4000 pairs, perhaps 18 000 to 20 000 individuals.

There have been no detailed studies of the breeding biology of this species. It is presumed to breed annually. Eggs are laid in August and September, and chicks are presumed to fledge in April.

The accuracy of the single population estimate is low, and the status of this species is therefore unknown. The species is classified as being Critically Endangered.

SLIDE 52

A significant threat to this species on land is a reduction of the quality of nesting habitat as a result of storm damage and climatic change. These birds tend to be solitary at sea and their movement patterns are not clear. They are rarely seen in coastal regions. During the non-breeding (winter) season, they disperse towards the west coast of South America where they mostly frequent pelagic waters. In 1995 a banded juvenile Chatham Albatross was reported to have been killed on a longline targeting swordfish off Chile. Chatham Albatrosses also occur off the coast of Tasmania where they are known to interact with longline fishing operations.

SLIDE 53

BULLER'S ALBATROSS *Thalassarche bulleri*

Buller's albatross breeds on 2 islands in New Zealand - The Snares and Solander Is.

The breeding biology of this species is poorly known. They are typically annual breeders, with adults returning to the colonies in December. Eggs are laid in January-February, their chicks hatch in March-April and fledge from late August to late October.

The breeding population estimated at about 12,500 pairs, with perhaps 50 000 birds in total. Most of these birds are from the Snares Islands population (77% of the population). It's conservation status is assessed as being Vulnerable.

The only identified threat facing Buller's Albatrosses is mortality associated with fishing activities. Many Buller's Albatrosses are known to have been killed by colliding with cables and warps on trawlers, but this source of mortality has now been mitigated. Buller's Albatrosses are also known to be hooked on longlines in waters off Australia and New Zealand. The autumn/winter breeding characteristic of Buller's Albatrosses focuses the risk from longlining as it is during the winter months that fishing effort is concentrated within the foraging range of breeding adults.

SLIDE 54

Both populations of Buller's albatross have been the subject of satellite tracking studies. Breeding birds in the Snares population were tracked to foraging grounds on the east coast of New Zealand's South Island, and across the Tasman to Tasmanian waters.

SLIDE 55

Solander Island breeders also foraged in similar areas, although females foraged along the west coast of the South Island of NZ, and more extensively in the Tasman.

SLIDE 56

PACIFIC ALBATROSS Thalassarche nov. sp.

Breeding Distribution and Jurisdiction

The Pacific Albatross breeds in the Chatham Is. Group. It is an annual breeder, with birds laying eggs in November, and chicks fledging in June.

The breeding population is estimated at about 18 000 pairs, or 80 000 birds. The species has a Vulnerable conservation status both globally and in Australia.

There is no information on its movements or distribution at sea because it is difficult to identify at sea from the similar Buller's Albatrosses. Despite this uncertainty, it has been suggested that the species is highly migratory during the non-breeding season, ranging eastward across the southern Pacific Ocean to the western South American

coast. During the breeding season the birds are known to forage in the area of the Challenger Rise, coincident with longline operations. To date there are no reports of deaths of these birds on longlines.

SLIDE 57

CAMPBELL ALBATROSS *Thalassarche impavida*

Breeds on Campbell I., New Zealand, where it is an annual breeding species. Adults return to colonies in August, laying eggs in September-October, with successful breeders and chicks leaving the colony in April-May.

Population Size is estimated at 26 000 pairs or 78,000 birds in total. The species has a Vulnerable conservation status.

In the past human predation and sheep have affected the Campbell Albatross population. These threats no longer exist and predation of eggs and chicks by skuas and Northern Giant Petrels are the only identified threats to the species on land.

SLIDE 58

At sea, Campbell Albatrosses are mainly confined to the waters off southern Australia and New Zealand and the western Pacific Ocean. High capture rates of Campbell Albatrosses have been recorded from longliners operating in these areas. Bycatch of this species in New Zealand constitutes mainly juveniles, but adults in breeding condition are also caught during summer off the Tasmanian coast. Of all returns recovered from banded albatrosses killed on longliners off Australia between 1987 and 1994, 13% were Campbell Albatrosses, confirming that Australasian longlining is the major threat facing this species.

There has been one satellite tracking study for this species. These birds spent 55% of their time on the Campbell plateau but also carried out long foraging trips to the Polar Front and Antarctic Zone at a distance of over 2,000 km.

SLIDE 59

INDIAN YELLOW-NOSED ALBATROSS *Thalassarche carteri*

Breeding Distribution and Jurisdiction

Indian Yellow-nosed Albatrosses breed in the Indian Ocean at Prince Edward Is., Kerguelen Is., Crozet I., Amsterdam and St. Paul Is.

Annual breeding. Most eggs laid in September-October, hatch in November-December and chicks fledge in March-April.

Population Size

The annual breeding population is estimated at ca. 36 500 pairs, corresponding to approximately 160 000 individuals in total. Population size estimates are generally poor for this species across it's range, the only exception being the Amsterdam Island population which represents approximately 70% of the estimated global population. This population has decreased by over one third since the early 1980s and is decreasing at 7% annually as a result of increased mortality of both adults and immatures. As a result, it's conservation status has been assessed at Vulnerable.

As with many of these species, it appears that interactions with commercial fishing operations are the most serious threat faced by Indian Yellow-nosed Albatrosses. Yellow-nosed Albatrosses constituted 14% of the seabird bycatch observed on tuna longlines off Brazil, similar to the 13% recorded in the Australian region. In the Australian sample, adults were primarily caught during winter whereas immatures were more often caught in the summer fishing season The only other significant source of mortality identified for this species is a viral disease which in some years causes elevated chick mortality in some colonies.

SLIDE 60

The species is to be found mainly in the Indian Ocean, but its distribution also extends into the Western Pacific. The arrows on this overhead indicate sites were the species breeds.

SLIDE 61

ATLANTIC YELLOW-NOSED ALBATROSS *Thalassarche chlororhynchos*

The Atlantic Yellow-nosed albatross breeds in the Tristan da Cunha group and on the nearby Gough I. As its name suggests, this species is essentially confined to the southern Atlantic Ocean, where it is likely to be annual breeder. Most eggs are laid in September-October, hatch in November-December and chicks fledge in April-May.

The breeding population is estimated at about 37 000 pairs, corresponding to approximately 165 000 individuals in total. Populations size estimates are crude as no population has ever been reliably surveyed. In the absence of such data, the species has been assessed as Near Threatened on the global scale, and Vulnerable in Australia.

The absence of any reliable information on population size precludes any assessment of population trends and status for the six populations. Unpublished information indicates that the Gough Island population has shown a significant decrease since the 1980s.

Threats

Since the cessation of harvesting by humans at Tristan da Cunha in the 1990s, interactions with commercial fishing operations are the most serious threats faced by Atlantic Yellow-nosed Albatrosses. Little is known about the oceanic distribution of this

species and confusion with Indian Yellow-nosed Albatrosses precludes quantitative assessment of bycatch rates in most areas. Yellow-nosed Albatrosses constituted a significant proportion of the seabird bycatch observed on tuna longlines off Brazil, and it is likely that these birds were Atlantic Yellow-nosed Albatrosses. Further information on the status of the populations and the extent of bycatch of this species are urgently required.

SLIDE 62

SOOTY ALBATROSS *Phoebetria fusca*

Sooty albatrosses breed at 7 locations in the Atlantic and Indian Oceans. The largest populations are on Gough I. And Tristan da Cunha Is., with smaller colonies breeding on Prince Edward I. and Marion I.; Kerguelen, Crozet, Amsterdam and St. Paul Is.

Sooty albatrosses are biennial breeders. Most eggs laid in October, hatch in December and chicks fledge in May.

The annual breeding population is estimated at ca. 15 500 pairs, and there are approximately 100 000 individuals in total. Its conservation status is considered *to* be Vulnerable.

The status of Sooty Albatrosses is known only for one small population in the Crozets. The population decrease documented for this species is the most extensive of the six albatross species studied at the Crozets or Kerguelen. The population is currently declining at a rate of 3% p.a. These rates translate to a total decrease in the population of 58% since 1980. Decreasing survival rates of both adults and immatures are responsible for the observed population trends. The status of the remaining populations (comprising approximately 98% of the estimated global population) is unknown.

SLIDE 63

The adult mortality rate of Sooty Albatrosses at Crozet is significantly related to the longline fishing effort that occurs in the oceanic sectors prospected by them. Other threats include ingestion of plastics, and introduced predators and habitat disturbance which impact upon their breeding sites.

SLIDE 64

Adult and immature Sooty Albatrosses are known to be killed on Japanese longlines set both inside and beyond the Australian Fishing Zone. Information detailing the composition of seabird bycatch within the foraging area of this oceanic species, especially on the high seas of the Indian Ocean exists but is currently confidential to fisheries managers. From the limited information which is available, however, it is clear that Sooty Albatrosses are caught in proportionately higher numbers on the high seas than in Exclusive Economic Zone fisheries, reflecting the oceanic habit of this species.

Without information to the contrary, the logical conclusion is that longline fishing is responsible for the observed population decreases and is the most serious threat facing this species. Shown on this overhead is four satellite tracks from Sooty Albatrosses breeding in the Crozets and which had small chicks at the time. The tracks shown are short duration linear searches, and these tracks radiate in all directions and up to 500 km from the breeding colony.

SLIDE 65

Northern giant petrels

Northern giant petrels have a circumpolar pelagic distribution, ranging across the Southern Ocean, mainly in sub-Antarctic waters. They breed mostly on sub-Antarctic islands situated north of the Antarctic Polar Front. Historical distribution is not known to have differed from the current situation.

In the mid-1980s there were an estimated 8 600 breeding pairs occurring globally. More recently, when regular censuses at many breeding sites have been conducted, a global breeding population of 11,500 pairs has been estimated. This corresponds to an increase of 2.6% per annum since the mid-1980s. Marked increases have occurred at Macquarie Is, Marion Is and South Georgia (Isla Georgia del Sur), but the Crozet population is decreasing. The total population is estimated at 32,000 birds.

Australia has accorded the species a Vulnerable status. Globally, it is considered Near-Threatened.

SLIDE 66

The main threat is from incidental mortality of migratory juvenile and pre-breeding birds, and breeding adult birds, from commercial longline fishing activities, from alighting on and swallowing baited hooks and being shot to prevent bait-stealing. Other threats include entanglement in marine debris and fishing gear from other fisheries; human disturbance at breeding colonies; predation from alien vertebrates, e.g. feral cats *Felis catus* and rats *Rattus* spp., on eggs and possibly chicks. Habitat degradation from introduced mammals (e.g. domestic sheep and European Rabbits) at some breeding islands may have contributed to population decreases.

In longline fisheries for Patagonian Toothfish at the Prince Edward Islands, giant-petrels are caught in high numbers. The rate in 1996/97 corresponded to an estimated annual 'harvest' of *c*. 6% of the total breeding population of Northern Giant Petrels at the Prince Edward islands. Based on recoveries of banded birds, roughly 10% of reported juvenile mortality of giant petrels is attributable to interactions with fisheries. Expansion of longline fisheries into new areas of the Southern Ocean and the targeting of new species is cause for concern that rates of incidental capture will continue to be unacceptably high.

Northern and Southern Giant Petrels were regarded until 1966 as a single species, the Giant Petrel. Inadequate censuses at some breeding localities, and difficulties in

separating the two forms at sea, has complicated the historical record on population trends and recording of fisheries mortality, with many observers combining the two forms into a generic *giant-petrel* category. Population trends should be treated with some caution, therefore. Where sufficient data exist, however, longline mortality is most frequently cited as the principle cause of population decreases, and increasing Antarctic Fur Seal *Arctocephalus gazella* abundance as the cause of population increases. Both Northern and Southern Giant Petrels are particularly sensitive to human disturbance when breeding, leading at times to complete colony failures.

SLIDE 67 & 68

Seal and penguin colonies are frequented on land, especially by male birds, whereas females spend more time at sea, as shown in these satellite uplinks for both males and females breeding at South Georgia (Isla Georgia del Sur). Generally the species is linked more to seal and penguin abundance than is its close relative the Southern Giant Petrel, which relies more on a variety of dispersed pelagic prey. At sea, birds occur from sub-Antarctic to sub-tropical and Antarctic areas in south-western Indian Ocean and areas west of the Antarctic Peninsula. Both coastal and pelagic waters are frequented, birds often scavenging behind ships.

Migrations are poorly understood. Rates of recoveries of banded birds are lower than for Southern Giant Petrels. Adults appear to be more resident at breeding colonies throughout the year than the Southern Giant Petrel. Juveniles and pre-breeders aer highly migratory. Fledglings depart natal colonies late January - March, and most move progressively eastward, following prevailing westerly winds. This species appears to favour a narrower latitudinal band than does the Southern Giant Petrel with no recoveries south of 50ºS. The majority of recoveries of juveniles is from Australasian, Pacific and South American (west coast) waters. Mean distance between banding and recovery sites of juveniles is *c*. 8 000 km. Movements of pre-breeding birds after their first year are little known, because recovery rates are very low, but a largely pelagic existence with some birds visiting non-natal colonies is probably the case. Adults may remain close (*c*. 200 km) to breeding colonies during the breeding season.

SLIDES 69 & 70

Southern Giant Petrel *Macronectes giganteus*

Southern Giant petrels have a circumpolar pelagic range in the Southern Ocean, and breed between 40-67ºS on southern cool-temperate, sub-Antarctic and Antarctic islands, Antarctica and South America (Argentina and Chile). Although some local populations have been displaced by human disturbance, only one island breeding population is certainly extinct, that formerly occurring on Tristan da Cunha. Breeding at Bouvet Island has not been confirmed since 1981, thought due to displacement by an increasing Antarctic Fur Seal population.

SLIDE 71

In the mid-1980s there were an estimated 38 000 breeding pairs occurring globally. More recently where regular censuses at breeding sites have been conducted, a global breeding population of 31 358 pairs has been estimated. This corresponds to a decrease of 1.4% per annum since the mid-1980s. Marked decreases have occurred at Heard and Macquarie, South Shetland, South Orkney and Antarctic Peninsula colonies, but elsewhere populations have exhibited long-term stability, or have increased. The total population is estimated to be 94,000 birds. Australian populations are considered to be Endangered, but the global population is assessed as being Vulnerable.

The main threat is incidental mortality of migratory juvenile and pre-breeding birds, and breeding adult birds, from commercial longline fishing activities, and being shot to prevent bait-stealing around boats. Other threats include entanglement in marine debris and fishing gear from other fisheries; human disturbance at breeding colonies including taking of eggs and chicks for subsistence; and predation from alien vertebrates such as feral cats and rats. Habitat degradation from introduced Reindeer, domestic sheep and European Rabbits, as well as from Antarctic Fur Seals at some sub-Antarctic islands may have contributed to population decreases.

SLIDES 72 & 73

At sea, Southern Giant petrels range from coastal to pelagic waters, occurring south into pack-ice zone and north to sub-tropical waters. Extensive pelagic foraging includes following ships and scavenging behind fishing vessels.

Migrations are poorly understood. Some adults are resident at breeding colonies during winter, but most non-breeding adults and all juveniles disperse widely from colonies. Fledglings depart natal colonies in March-early May, and move north and east within a broad latitudinal range, tracking prevailing westerly winds. Most recoveries of banded birds occur in June-August from Australian and New Zealand waters, with relatively few from South American and southern African waters. The average distance between banding and recovery sites of juveniles is 10 000 km. Movements of pre-breeding birds after first year little known, but absence from natal colonies during this period suggests a largely pelagic existence. During breeding, most adults appear to have limited dispersal to adjacent waters.

As shown by these satellite uplinks for both males and females breeding at South Georgia (Isla Georgia del Sur), male birds spend extensive time foraging at seal and penguin colonies on land, whereas females spend more time at sea. This pattern is very similar to that observed by Northern Giant Petrels breeding at South Georgia (Isla Georgia del Sur).

SLIDE 74

White-chinned Petrel *Procellaria aequinoctialis* .

White-chinned Petrels have a circumpolar pelagic range in the Southern Ocean, and occur from southern cool-temperate and Antarctic waters to as far north as 15°S off

Angola and Peru. Its breeding range is confined to sub-Antarctic islands to the north of the Antarctic Polar Front. Historical distribution not known to be different from current.

There are no accurate censuses of breeding numbers, and therefore of trends, for this burrowing species at any breeding locality. The global population is estimated at about 10 million birds, and its conservation status is Vulnerable, both globally and domestically

SLIDE 75

At sea the species ranges widely from coastal to pelagic waters, occurring south to the pack-ice zone and north to sub-tropical waters and to the continental shelves of southern Africa and South America. Extensive pelagic foraging includes following ships and scavenging behind fishing vessels.

Movements are poorly known. It is only observed at breeding localities during the breeding season (mid-September to mid-April). Incubating birds can move more than 3000 km from their breeding localities, into sub-tropical as well as Antarctic waters. Satellite-tracked birds from Iles Crozet and South Georgia (Isla Georgia del Sur) foraged 1) within South African and Patagonian (to 41°S) coastal waters, 2) over pelagic waters to the north and south, 3) over the shelf areas surrounding their breeding islands, and 4) at the edge of the Antarctic pack ice (Iles Crozet birds). Birds feeding chicks appear to have smaller foraging ranges but South Georgia (Isla Georgia del Sur) birds reach 39°S on the Patagonian Shelf. During winter birds move north to sub-tropical waters (vacating the open ocean south of 44^{o}S) and large numbers are common in the coastal waters of South America, South Africa and Australia.

SLIDE 76

The overhead here shows the birds distribution, and the arrows indicate breeding sites.

The main threats are from incidental mortality from longline fishing activities and from predation by introduced predators, especially feral cats and rats.

SLIDE 77

Spectacled Petrel *Procellaria conspicillata*.

The Spectacled Petrel occurs in the South Atlantic Ocean between the continental shelves of South America, especially Brazil, and South Africa, between 25-40°S. The only known breeding site is Inaccessible Island in the Tristan da Cunha group. They may also have bred previously on Amsterdam Island, in the southern Indian Ocean, where *Procellaria* petrel bones have recently been found.

One thousand pairs are estimated to breed on Inaccessible Island. This estimate may be inflated because burrow occupancy was not confirmed at the time the last census was taken (1980s). No subsequent surveys have been made. Populations

earlier in the century may have been smaller. The Spectacled Petrel has only recently been considered to be a full species, previously being regarded as a subspecies of the White-chinned Petrel *P. aequinoctialis.*

At sea the species ranges from pelagic to coastal waters in the South Atlantic Ocean, where it scavenges behind fishing vessels. It breeds in burrows in stream banks and boggy areas on the western plateau of Inaccessible Island. Its conservation status is rated as Endangered.

SLIDE 78

Migrations are poorly understood; no band recoveries exist and no satellite-tracking has been undertaken. Birds migrate to the continental shelf waters of South America and the western coast of South Africa, based on sightings at sea and birds caught by longline fishing vessels. During summer this species is the most common seabird attending demersal longline fishing vessels off south-eastern Brazil. However, during winter it is almost totally absent, being replaced by the White-chinned Petrel.

The main threats are from incidental mortality from long-line fisheries, the risk of introduced predators and peat fires. The highly restricted breeding range (a single island) and small breeding population (in the region of 1000 pairs) means the species is extremely vulnerable to stochastic events, both natural and human-induced. It has been suggested that the current population has recovered from significant predation by feral pigs during the 19th Century. The introduction of a mammalian predator or an avian disease to Inaccessible Island could lead to the extinction of this species.

More than 200 Spectacled Petrels were killed annually by longline fishing operations off the coast of Brazil during the late 1980s and early 1990s, representing 8% of all fishery mortalities. This mortality rate has since decreased, but is still of great concern given the small population size of this species. Given the large distances (3000+ km) travelled by breeding White-chinned Petrels equipped with satellite tracking devices and the fact that they only occur in these waters during the summer (the breeding season), it is conceivable that birds killed off Brazil may be breeding birds, as well as non-breeders and juveniles. Spectacled Petrels may also be killed by longline fisheries off the coast of South Africa, as well as by the large tuna fishery operating in the South Atlantic Ocean.

SLIDE 79

Black Petrel *Procellaria parkinsoni*

At-sea distribution is mainly within New Zealand waters during breeding and into the sub-tropical Pacific Ocean during the non-breeding season. Breeding is restricted to two neighbouring islands in Hauraki Gulf, off the coast of North Island, New Zealand. Formerly bred on North Island and northern South Island, New Zealand. However, these populations were severely exploited for human consumption during the 19th Century.

Great Barrier Island supports 800 breeding pairs and 50 pairs breed on Little Barrier Island. The total population, including pre- and non-breeders, has been estimated at 3000-4000 birds. Numbers are thought to be increasing slowly on Little Barrier Island since the eradication of feral cats and may be stable on Great Barrier Island.

Black Petrels breed in burrows and cavities among tree roots in virgin forest above 300 m in summer.

The main threats are from incidental mortality from longline fishing activities and from predation by introduced predators, especially feral cats, and Pacific Rats.

The once large population on Little Barrier Island was almost exterminated by cats with 100% loss of chicks in the mid-1970s. However, the recent eradication of cats on the island has allowed the population to increase. Feral cats and rats occur on Great Barrier Island where Black Petrel populations seem to survive with little interference. Birds on Great Barrier Island (which is inhabited) may still be occasionally killed for human consumption.

Black Petrels are killed in small numbers by tuna longlines in New Zealand waters. Although the scale of this impact is incompletely known, the foraging habits of this species which include scavenging behind vessels suggest that it may be at high risk from this fishing practice. Its small global population size and relatively localized non-breeding foraging area further increase the vulnerability of the species. Almost 10% of the known species' population has been seen in association with a single mixed group of whales and dolphins in the Pacific Ocean. A banded bird has been caught by a fishing vessel (type unknown) off Peru.

SLIDE 80

The bulk of the population apparently moves to the eastern tropical Pacific Ocean during the non-breeding season, where birds are observed from southern Mexico to northern Peru and at the Galapagos Islands.

SLIDE 81

Westland Petrel

Breeding in the Westland Petrel is restricted to the mainland between Barrytown and Punakaiki, on the west coast of South Island, New Zealand. The species breeds in burrows in winter, in densely forested foothills near the coast in an area of *c*. 3.5 km^2. The total population size is estimated as 2000 breeding pairs and less than 20,000 birds, although an intensive ground search in 1974 yielded only 818 occupied burrows. Their global conservation status is Vulnerable.

The species is a prolific scavenger of waste from fishing vessels, with more than half its diet being made up of fisheries waste during the Hoki fishing season. This behavioural trait places it at risk of incidental mortality by longline fisheries within its at-

sea range. Tuna longline vessels operating in New Zealand waters have recorded females as incidental mortality.

Predation of eggs and chicks by feral cats, domestic dogs, mustelids and the natural predator, the Weka are significant threats. Modification of breeding habitat by the timber industry, and trampling of burrows by cattle, goats and humans, Other threats include entanglement in marine debris and fishing gear and consumption of plastic particles; accumulation of chemical contaminants; fluctuations in numbers of important prey species; oceanographic change.

SLIDE 82

Breeding birds mainly forage in New Zealand coastal waters.

During the breeding season (March to December) birds are concentrated over the shelf slope off the east and west coast of New Zealand. They are rare visitors to Australian coastal waters during the non-breeding season. Non-breeding birds venture into the central Pacific Ocean outside New Zealand waters and as far as the Pacific coast of South America, where two banded sub-adults have been recovered in Chile.

SLIDE 83

Grey Petrel ***Procellaria cinerea***

Grey Petrels have a circumpolar pelagic range in the Southern Ocean, primarily in southern cool-temperate and sub-Antarctic waters north of the Antarctic Polar Front between 32-58°S. They reach South Africa and the Pacific coast of South America as far north as Peru. Breeding occurs on southern cool-temperate and sub-Antarctic islands. Previously bred on sub-Antarctic Macquarie Island, but was extirpated by introduced Wekas, feral cats and Black Rats.

No accurate censuses of breeding numbers, and therefore of trends, exist for this burrowing species at any breeding locality. The total population is thought to exceed 200,000 birds.

Migration is poorly understood.. Birds are only found on breeding islands during the winter breeding season. Winter distribution is farther north than in summer, but patterns of movement are poorly understood. No satellite-tracking has been undertaken and recoveries of banded birds are very few.

The main threats are from incidental mortality from longline fishing activities, and predation by introduced predators, especially feral cats and rats. Indirect threats include entanglement in marine debris and fishing gear and consumption of plastic particles.

There is particular concern for this species in New Zealand waters where it has been the most frequent species killed by the tuna longline fishery. Substantial incidental

mortality of Grey Petrels has also been recorded in the tuna longline fisheries off Australia and South Africa. Ninety-six percent of Grey Petrels caught off New Zealand were adult females. It is likely that this species is also being caught in substantial numbers by the large tuna longline fishery operating in international waters in the southern Indian Ocean, for which little seabird bycatch information exists. Incidental mortality of Grey Petrels has also been recorded in the Patagonian Toothfish fishery in the close vicinity of sub-Antarctic breeding colonies.

Mr HAASE—I have not got specific comments or questions except that, from a general point of view—and I think it was covered in our last questioning—this is not going to impose any restrictions on the fishing industry that have not already been generally agreed to and it is not therefore going to put specific fleets at risk. Indication of that nature is what I am looking for, but I believe we have extracted that from you. We now have quite specific material to refer to should we wish to pinpoint any particular population of industry or birds that need specific concentration. I think we have covered it well. I am just wondering if amongst those giving evidence there are other salient points that they feel ought to be raised with us and that we ought not miss the opportunity to hear.

Ms Montgomery—I would like to raise one point, and that is to do with the three pages you have at the end of your presentation. That package has the list of identified range states. It may not be clear in the status column what B, F and DW stand for. I will explain that now so that if you are looking at it later it makes sense. B stands for a range state that has breeding populations of either albatrosses or petrels within its waters, F stands for a range state that has any albatrosses or petrels foraging within its waters but not breeding, and DW is distant water fishing fleets that interact with albatrosses or petrels in their activities. Hopefully that will clear that up.

Senator TCHEN—Ms Montgomery, I noticed two of the countries which are engaged in deep water fishery activities, probably quite substantially, have declined to have anything to do with this: one is Japan and one is China.

Ms Montgomery—China actually do not have a large long-line fishing fleet at the moment.

Senator TCHEN—Not yet.

Ms Montgomery—Yes, not yet. So they will remain on the list for future interest and hopefully will come around.

Senator TCHEN—Taiwan does. China has not claimed sovereignty over that?

Ms Montgomery—No. Japan was invited to all negotiations and we have kept them fully informed of where the process is at. They declined to attend both negotiation sessions on the basis that the sole species of albatross that occurs in Japanese waters that breed there, the Short-tailed Albatross, is not covered by the agreement because it is a Northern Hemisphere species. So they felt they were addressing their seabird by-catch problems within other fora and were not inclined at this stage to come along to the agreement. But we will be keeping them informed of progress and hopefully they will come along to a meeting of the parties and in the future see the sorts of benefits that they will able to get out of it as well.

ACTING CHAIR—Where does that appear in here—the Short-tailed Albatross? Have they got the Short-tailed Albatross?

Ms Montgomery—No. That is not covered by the agreement because it is a Northern Hemisphere species. There are three albatross species that are not covered by the agreement, and they are all Northern Hemisphere species: the short-tailed, black-foot and the Laysan.

Senator TCHEN—The treaties propose actions that are basically just further research and studies. Is any enforcement provision provided? I probably should read this.

Ms Montgomery—The agreement presents a holistic approach to albatross and petrel conservation, so it looks to manage the threats that they face, both on land and at sea, and one of the actions in the action plan is for range states to collect better information on seabird interactions with their fisheries. A lot of the problem at the moment is that a lot of countries are not really aware of what level of seabird by-catch is occurring within their fisheries, so one of the actions of the agreement will be to try to elucidate that information.

Senator TCHEN—There is no provision for proactive steps to actually protect these species? What I am saying is that, for example, if there is agreement that a certain practice should be banned which is damaging a species, then there is no further action to ban the practice?

Ms Montgomery—Not specifically contained within the agreement because it seeks to be a cooperative one in the first instance, and exchange information. One of the problems is a lack of knowledge and technology within other countries on seabird by-catch mitigation measures, and so the first step is to be able to share information about what is happening and what can be done at what levels.

Senator TCHEN—That might be helpful. Some of these countries are very good in doing sea life research.

ACTING CHAIR—Apropos of what Senator Tchen has asked, you would not want anything more comprehensive than this. Is that right? Couldn't this and the background material be sent to all the people who want to know how the albatrosses and petrels are going?

Mr Baker—The two species that I had covered in my presentation were not perhaps two of the better studied species. Some of the petrels in particular and species such as the Sooty Albatross, for example, are very poorly studied. There is very little known about them; there are very poor population estimates. If they are pelagic in their distribution or oceanic in their distribution, they are probably being impacted upon by fisheries, which we have no information about at this stage. There is a lot more that can be gained through sharing knowledge with other range states on the biology and conservation of the species concerned.

Senator TCHEN—Mr Baker, you provided the domestic conservation status as well as the global status. I assume that for the domestic status we can enact domestic laws to protect it. That would be only enforceable within the territorial waters, would it? Or does it cover the economic waters as well?

Mr Baker—Your understanding is correct. It covers just Australian waters.

Senator TCHEN—We cannot enact laws to protect any of the species in the fishery waters? Or can we do that?

Mr McNee—I can clarify that. Under management plans in certain fisheries it is possible to include requirements or obligations on Australian vessels fishing outside the Australian fishing zone.

Senator TCHEN—What about foreign vessels in Australian economic waters?

Mr McNee—Within Australia, if there were foreign vessels in Australian waters then—

Senator TCHEN—No, not Australian waters; I mean the economic—

Mr McNee—You mean on the high seas?

Senator TCHEN—Yes.

Mr McNee—Australia cannot influence the behaviour through its own legislation, but an agreement like this has the potential to provide world's best practice and those types of things which could be adopted by those countries. In many ways one of the most powerful components of this agreement is that there is obviously a range of regional fishing organisations that manage fish stocks on the high seas, and the type of information that would be generated out of the cooperation between the parties to this agreement could be a fairly significant input into the consideration of by-catch issues and how to address it within those regional marine fishery organisations.

Senator TCHEN—So hopefully it is a step forward, occupying the moral high ground.

Mr McNee—Clearly.

Senator TCHEN—Mr Baker, I understand there is a description of 'vulnerability' for the domestic conservation status of this related species which actually occurs in Australia or occupies Australia during some of its lifetime.

Mr Baker—That is correct. There are five species of albatross which breed in Australian waters and there are about 13 or 14 that visit and forage in Australian waters but do not actually breed.

Senator TCHEN—I am curious because for the Amsterdam Albatross—of which apparently there are only about under 100 in the world now—

Mr Baker—That is about right.

Senator TCHEN—you have a domestic status, but looking at your map it does not come anywhere near Australia.

Mr Baker—No, there are a couple of vagrant records. One was in fact caught on an Australian long-liner. I would have to refer to my notes on that. It was certainly caught on an Australian long-liner operating within the Australian fishing zone, but there are very few records of them in Australia. They are essentially confined to the Indian Ocean.

Senator TCHEN—Thank you.

Mrs DE-ANNE KELLY—First of all, I compliment you on a very comprehensive submission. Thank you for the attention to detail. I noticed in the proposed treaty on page 3 that points 16 and 17 refer to the regulations for Australian long-line fishing which have already been put in place domestically. Am I to understand from this treaty that we have already reached world's best practice in terms of our management of long-line fishing and that signing this treaty, from an Australian perspective, will encourage other countries to reach an international standard? Is that correct, or will this treaty impose further conditions on Australian long-liners?

Mr McNee—I can answer that fairly quickly. Australia has the most comprehensive framework for the conservation of albatrosses, in terms of controlling by-catch, under its existing domestic legislation. We have that in place. The issue is that there are only a few countries that have taken similar measures and, unless we can get other countries to take similar measures, we may not be successful. Our fishers have certainly taken significant steps to mitigate the catch of albatrosses and it is a mechanism of ensuring that other fishers outside the country are doing it as well.

Mrs DE-ANNE KELLY—May I ask you then which other fishers are of particular concern to us?

Mr McNee—I think there are two types of fisheries involved with seabird by-catch: demersal types of fisheries that occur down south for species like toothfish; and tuna fisheries, the long-line sectors of which occur in more temperate zones. There are many countries involved in those activities. They are primarily detailed in that range states list, but a significant amount of effort is in Japan and Taiwan in the tuna fisheries. In the demersal fisheries it is a much larger group. I am not as familiar with those fisheries.

Mrs DE-ANNE KELLY—There are 55,000 birds for the first site that you mentioned. I know of egg farms that are not viable if they have 100,000 birds, so it does not leave a lot, does it? It is pretty serious. Can I have a free question on an unrelated matter while Environment Australia are here, Chair, just as an indulgence?

ACTING CHAIR—Absolutely.

Mrs DE-ANNE KELLY—Where do Green Turtles come in terms of the category of threat?

Mr Baker—Green turtles are, I believe, listed as vulnerable. All marine turtles are listed as vulnerable, with the exception of Loggerhead Turtles, which I think are endangered. That is off the top of my head.

Mrs DE-ANNE KELLY—Thank you.

ACTING CHAIR—Is anything being done about the Green Turtles? Do we know?

Mr Baker—This is not strictly our area of expertise, but there is a recovery plan that has been prepared for some time which covers all marine turtles. I am not quite sure what state that is in or whether it has as yet been to the minister, but certainly there is a lot of action being taken to conserve all species of marine turtles within Australia. There is international action under way as well. Again, I do not have sufficient details on those, but maybe some of my colleagues do.

Mr Laing—There is at the moment a memorandum of understanding for regional conservation of marine turtles being negotiated. I think very shortly in Manila in the Philippines they are hoping to put the final touches to that memorandum. That of course is to establish cooperative conservation programs with all of Australia's tropical neighbours that record populations of marine turtles—populations which are often contiguous between, for example, Australia and Papua New Guinea and Australia and Indonesia.

Mrs DE-ANNE KELLY—I notice that one of the threats, not only to turtles but also to albatrosses, is plastic ingestion. Is anything being done by Environment Australia to replace the current plastics made from petrochemicals with some made from—dare I say it—sugarcane, which degrades? It is just a bit of a personal interest.

ACTING CHAIR—I thought that was a brilliant question.

Mrs DE-ANNE KELLY—Thank you, Chair. Seriously, that is obviously one of the answers, is it not?

Mr Drynan—There is actually a good development in Queensland with bait bags. They are made from corn, but they can be made from other agricultural crops. They decompose very quickly when they are wet.

Mrs DE-ANNE KELLY—In the water.

Mr Drynan—They are already being marketed. I think Environment Australia, not this area, are looking at that issue more widely than just in terms of bait bags—that is, at the general issue of plastic bags and things like that in the environment.

Mrs DE-ANNE KELLY—Can we talk to the appropriate person in Environment Australia? I would certainly like to pursue the matter if I can. Thank you for your indulgence, Mr Chair.

ACTING CHAIR—While we are on that area, fisheries interaction seems to be one of the great problems and plastic is the second one. What is the relative force of each of those elements?

Mr Baker—In the southern oceans there is no question that fisheries interaction is the major threat that the albatross and petrel species face. Not all the species of petrel face it. Essentially, if a species is not inclined to follow boats, it is not inclined to dive after baits that are being cast. But in the Northern Hemisphere plastic ingestion is a really serious issue. Last year I went to a couple of large colonies out on Midway Island. These were Laysan and Black-footed

albatrosses. I had heard about the issue of ingestion of plastics and, to be quite honest, because of what I knew about southern populations I really could not believe it was a serious issue. But I was astounded by the huge amounts of plastic material that had been regurgitated all over the island. Everywhere you went there were little kids' toys, cigarette lighters and all that sort of stuff.

What happens here is that northern species feed on the eggs of flying fish, which have been traditionally laid by flying fish on flotsam and the like. There is so much plastic in the oceans these days that flying fish have taken to laying their eggs on plastics and so the birds ingest them when they are trying to ingest the eggs of flying fish. They bring them back and then feed them to their chicks.

ACTING CHAIR—That is a very big issue in the Northern Hemisphere. What about the Southern Hemisphere? It is not as bad, but is it an element at all in the equation?

Mr Baker—Some species have been regurgitating plastic to their chicks. For Shy Albatrosses, I think about one per cent of dead chicks had some plastic in them, but not in the quantities that we have seen in the Northern Hemisphere. This is principally because the Southern Hemisphere species do not feed on the eggs of flying fish; they tend to be feeding more on squid and fish.

ACTING CHAIR—We have B for breeding, F for foraging, DW for distant water and DWFN.

Ms Montgomery—That means 'distant water fishing nation'.

ACTING CHAIR—You were asked about the Green Turtle. Now I must ask this question—and this is from school days: what sort of albatross was the Ancient Mariner?

Mr Baker—Probably a Wandering Albatross.

ACTING CHAIR—So there are some things we are going to do, but it is mainly just the exchange of information and making people aware.

Mr Baker—Yes, it really is critical. I was at a fishers forum last year and there were some Latin American countries present, and some fishing masters, in fact. One of them was the general manager of a fishing company. He had only been made aware in the last couple of months that his fleets were catching large numbers of seabirds. It had never dawned on him that it was a problem. He was so concerned about it that he had flown to New Zealand for this conference. Exchange of information is really critical. When fishers discover that they are killing vast numbers of birds, many of them are quite prepared to take action to alleviate the problem.

ACTING CHAIR—I notice in article 3 there are a few things there, such as, 'Conserve and, where feasible and appropriate, restore those habitats which are of importance to albatrosses and petrels.' Does that tend to be a declaration of intent rather than something more specific?

Ms Montgomery—They are the general conservation measures and they are followed up with more specific actions in the action plan, which is annexed. Restoration of their breeding habitats is critical for some species where feral animals have been introduced and are trampling on their nests; those types of things. What this is about is trying to coordinate data collection and harmonise conservation action so that you have a really good level playing field, and collecting base knowledge from around the globe so that we can gather it in one collection point, analyse it appropriately and then work out the best way forward from there.

Mr HAASE—Ms Montgomery, I did not catch your answer to the senator's question about the involvement of Japan. I want to know more about the likelihood of Japan becoming part of this cooperation in the future, because my understanding is that there is an extensive Japanese fleet operating in southern waters.

Ms Montgomery—Yes.

Mr HAASE—You mentioned their absence of involvement in the northern waters, but they are here and they are surely a contributor to the declining numbers, so what is proposed? Do you know?

Ms Montgomery—It is difficult for us to say whether Japan will want to become involved in the future. That is a matter for their domestic policy. They are a big fishing nation in the Southern Ocean and they are members of CCAMLR and they have recently drafted a national plan of action that comes under the FAO international plan of action for reducing seabird by-catch within their long-line fisheries. I think—and it is only from indications that we have had back throughout negotiations—that Japan feels that they are addressing their seabird by-catch issues within other fora and are not inclined to come along to this one at this time.

We will continue to keep them involved in the process as much as we can. It would certainly be of great benefit to the agreement to have Japan involved because they are such a big distant water fishing nation and they would have a wealth of knowledge to contribute, not only about fishing activities but also about the work that they have done in conserving their own Northern Hemisphere albatross species. They have done an awful lot of work with the Short-tailed Albatross. It was just about extinct at one stage, I think, and they brought it back from the brink. That sort of information would also be useful to exchange with other countries in the agreement. It is just a matter, I think, of keeping Japan involved and apprised of where the agreement is heading and hoping that in the future they will come along.

Mr HAASE—Was the Short-tailed Albatross's declining numbers caused by long-line fishing?

Ms Montgomery—No, it was mainly hunted for feathers, I think.

Mr Baker—Yes, and its breeding sites were threatened through volcanic activity.

Mr HAASE—You mentioned the high cost of satellite surveillance. Can anyone tell me how much we are spending currently on the conservation of petrels and albatrosses?

Mr Baker—How much Australia is spending on satellite tracking studies?

Mr HAASE—No, collectively.

Mr Baker—Can I take it on notice and get back to you?

Mr HAASE—Yes. I would very much like to know. What more needs to be done? What are the areas that you are concerned with knowing more about when it comes to research and cooperation in conservation? Where are the fields that you feel are yet unknown?

Mr Baker—For Australian populations, we need good information on the numbers of birds that breed at each population. We need good information on where those birds forage at all times of the year, because they certainly vary. For instance—I did not quite get to it in my presentation—the three Shy Albatross populations around Tasmania all forage in different areas when they are breeding, and it brings certain populations into contact with long-line fishing activities, whereas others are not. Also, young birds disperse. We know where the young birds from two of those colonies go, but we do not know where young birds from the third go.

The Mewstone population of young birds spend probably the first two or three years of their lives off South Africa, whereas the Albatross Island birds probably spend time in Western Australian waters and across the Great Australian Bight. We need information on where those birds disperse to at all times of the year, because that then provides us with some idea of what fisheries they may be interacting with and what threats they may be faced with during all stages of their lives.

Mr HAASE—Do you see an increasing or declining expenditure on conservation and analysis work for the albatross and petrel?

Mr Baker—I see probably an increase in the next three to four years, and it would be very useful. Through the use of satellite technology, for instance, you could very quickly, if you were prepared to throw a bit of money at it, get a fairly good idea of where these birds are foraging. But it is expensive. It costs about $5,000 to put a satellite tracker on an albatross.

Mr HAASE—How do you attach your sending device to an albatross?

Mr Baker—There are a number of different methods of doing it, but the preferred option is to glue and tape the device between the wings, on the shoulder, of the bird that is being tracked. This does not affect how the bird flies and, in time, the transmitter will drop off. One of those tracks I showed was where the transmitter had been attached through tape and glue, and it had probably fallen off.

Mr HAASE—It was on for 36 days or something.

Mr Baker—Yes. You can keep them on for five or six months using some of the tapes that are now available. There are other methods as well which we do not condone, such as the use of harnesses, which tend to restrict the flight movements of birds a bit.

Mr HAASE—We are not smart enough to miniaturise them enough to put them under the skin?

Mr Baker—There has certainly been some work on the surgical implantation of these devices in eider ducks in the Northern Hemisphere, and increasingly I think the technology will be applied. The problem is that you are dealing with very long-lived species here. Mature adults may live 50 or 60 years and, once you have surgically implanted it, it is very unlikely that you are going to get the equipment back. I do not think it is good for the bird in the long run, and if you are dealing with threatened species these are risks you do not want to take with birds with that sort of conservation status.

Mr HAASE—What is being done to minimise the by-catch with long-liners? What is the major move that we can have everyone adopt to minimise long-line damage?

Mr Baker—I might start and then let Mr McNee finish this. Essentially there is no one mitigation measure that you can apply to all fisheries. Mitigation measures for by-catch need to be fishery specific. Perhaps the single most effective method of mitigating by-catch is to set your lines at night because then the baits are invisible to most birds, although it does impact on species such as the White-chinned Petrel. But there are other devices. You can put weights on lines which make lines sink faster, and we are currently looking at an underwater setting device, a chute that hangs off the back of fishing vessels and in essence puts the baits in the water at a depth of eight or nine metres below the surface. That is currently being trialed. That technology would be suitable for pelagic fishing vessels if it is found to be successful.

Mr McNee—That is a good summary of where we are at. We have introduced, under the Fisheries Management Act, night setting and the use of what are called bird-scaring lines, which prevent them from going for the hooks. We are at the moment trialling this underwater setting device, which shows considerable promise. If we can show that it is successful within Australian operations, then it is something that we would certainly be looking at to see whether there was interest more broadly in bringing that kind of technology towards a solution.

Mr HAASE—Thank you.

Senator TCHEN—Mr Drynan, this has nothing to do with the birds now, but who is undertaking the research and development on the plastic that is dissolvable in water that you were talking about?

Mrs DE-ANNE KELLY—I can answer that question. The University of Queensland have in fact produced the plastics in their engineering laboratory. Sorry, I didn't mean to take over from our guests.

Senator TCHEN—It is just a bit of a contradiction in that you have a water soluble plastic but plastic is supposed to protect from moisture.

Mrs DE-ANNE KELLY—It does, but as you vary the thickness you vary the time it takes to decompose, so it will be fine for maybe—depending how thick it is—six weeks, and then all of a sudden it just goes like a jelly and it is gone.

Senator TCHEN—I see. I was wondering whether there has been any research done on perhaps using sodium chloride or something like that as a triggering mechanism, so it does not dissolve in fresh water but it dissolves in brine.

Mrs DE-ANNE KELLY—Plastics that we have dealt with—

Senator TCHEN—That is a critical issue, isn't it?

Mrs DE-ANNE KELLY—Yes. The triggering factor is soil or sunlight—sorry about this, gentlemen and ladies. If you have them laid as a mulch for horticulture, after a period of time of contact with the soil—six weeks or whatever—they decompose. And there are others that are very water soluble, eventually. I do not know whether you would use sodium chloride as the triggering factor.

Senator TCHEN—Thank you. I was envisaging a wet baby bag

ACTING CHAIR—Do you have any further questions there?

Mrs DE-ANNE KELLY—No, Chair, thank you very much.

ACTING CHAIR—Just as matter of curiosity, I can understand Japan not being supportive of the treaty, but what is the story with Poland, Spain and Portugal?

Ms Montgomery—Portugal have said that they do not think they interact much with albatrosses or petrels. They do not have any breeding in their waters, so they are not really interested. Poland just have not really got back with a lot of input into the agreement. Spain had said that they considered the relevant EU committee was covering albatross issues and they were not interested in that way, but we have just received feedback very recently, a couple of days ago, that they are looking more closely into it now. They are considering the agreement text, so things are looking a bit more promising there. That would be good.

ACTING CHAIR—Thanks very much.

Mr Laing—I think those countries and others as well see that their interests, as far as this issue is concerned, are to a large extent at least covered within CCAMLR and, where it relates to the Southern Ocean, they are working within CCAMLR, particularly on fishing, without necessarily dealing with the wider conservation needs of the birds.

ACTING CHAIR—Thanks very much. Thank you, Mr Laing, Mr Drynan, Mr McNee, Ms Montgomery, Mr Bamsey and Mr Baker. I think that was an excellent presentation. It looks like everybody is agreeing that it was an excellent presentation. Thanks for all the work that you put into it.

Resolved (on motion by **Senator Tchen**):

That this committee authorises publication of the proof transcript of the evidence given before it at public hearing this day.