WESTERN GRAY WHALE ADVISORY PANEL **WGWAP 1/Report**

1st Meeting **9-11 November 2006**

CONTENTS

LIST OF ANNEXES

1 INTRODUCTION

The first meeting of the Western Gray Whale Advisory Panel (WGWAP) was held at Hotel La Barcarolle, Prangins, Switzerland, from 9-11 November 2006 under the chairmanship of R.R. Reeves.

In addition to the full Panel (see Annex 1), the meeting was attended by representatives from the following organizations:

- Sakhalin Energy Investment Company Ltd
- The World Conservation Union - IUCN
- WWF – Russia
- WWF – UK
- European Bank for Reconstruction and Development
- Export Import Bank
- UK Export Credits Guarantee Dept.

At the request of the Panel, David Weller participated in the meeting as an Associate Scientist.

1.1 Background

IUCN has been engaged on the issue of We

develop recommendations from documents produced by Sakhalin Energy and other participating companies, but also to prescribe the types of research and monitoring needed for adequate WGW protection.

IUCN finally established the WGWAP on 2 October 2006. The panel is convened for an initial period of five years, with the possibility of extension. The WGWAP Terms of Reference can be found on the IUCN website [http://www.iucn.org/themes/marine/sakhalin/ISRP_Followup/WGWAP.htm].

in a critical state and this will remain true for many years even under the most optimistic scenarios. Given the nature of whale population dynamics and our ability to estimate abundance, the detection of significant trends in population size will require several more years of data, except, perhaps, in the case of a catastrophic decline. Hence the importance of a commitment to long-term monitoring.

Observed calf production in 2006 was disappointingly low, with no more than 4 calves observed by any of the research teams. However, the field season was hampered by poor weather, which led to reduced survey effort. The number of calves observed by the Russia-USA research team since 1998 (Weller *et al.* 2006) have ranged from 3 to 11 per year (1998: 8; 1999: 3; 2000: 3; 2001: 6; 2002: 7; 2003: 11; 2004: 7; 2005: 6).

4.2 Discussion and agreement on assessment methods and plans

During the meeting, Sakhalin Energy reported that it had no plans to contract for a population assessment based on the Institute of Marine Biology photo-identification dataset alone, because the time series (from 2002 onwards) is too short.

The Panel agrees that, in principle, the population assessment could be improved by combining all available photo-identification data, including those maintained at the Institute of Marine Biology (Vladivostok) along with those of the Russia-USA team (from 1994 a(h Bc8et)Tj09 Tbasedip(onir/Ty 199f8 Tw 18.2gnd agrecross-[(will retch(, i[(those m)9(ametd n155(t

of mother-calf pairs, number of skinny whales, and any known deaths. The Panel also looks forward to receiving the detailed analysis of the 'skinny' whale issue being undertaken by the Russia-USA team, incorporating the objective photographic approach described under (a) above.

5 PHOTOGRAPHIC AND GENETIC IDENTIFICATION OF WESTERN GRAY WHALES

Photographic and genetic data for individual identification represent the single most important data source for the assessment of western gray whales. The value of such data in obtaining *inter alia* estimates of abundance and other population parameters and in elucidating social structure and movements is well known. At present there are two groups working on photo-identification of western gray whales: the Russia-USA programme that has been working since 1997; and the Institute of Marine Biology (Vladivostok) group that has been working with the industry (Sakhalin Energy and Exxon Mobil) since 2002. The Panel was pleased to receive the publicly available CD of the catalogue[1] of the Russia-USA programme and the news that the catalogue of the Institute of Biology programme would soon become available.

Experience from around the world has shown that results from the collaboration of groups working with photo-identification (and genetic) data are of considerably greater value than simply the sum of the results from the individual groups working alone. In addition to enhancing the scientific value of the studies, for such a small critically endangered population as that of western gray whales, collaborative studies also provide the opportunity to minimise the disturbance to whales caused by research boats. For a variety of reasons, relatively little progress has been made thus far in comparing the two WGW catalogues.

The need to ensure consistency in how identifications of individuals are made (e.g. determination of new individuals vs. resightings) has long been recognised and both the IISG and the IWC Scientific Committee have recommended that the two WGW research groups compare photographs and catalogues – ideally resulting in a virtual or actual agreed catalogue and database of resightings with the appropriate safeguards for data holders. Similar exercises have been successful in several areas of the world involving many more research groups (e.g. the North Atlantic humpback whale catalogue and the Europhlukes project). The IISG report noted that there were significant inconsistencies between the two catalogues and made a number of recommendations[2] for their future integration. It recognized that combining these data sets,

In view of those considerations, the Panel is pleased that the relevant parties have agreed to the terms of reference for a Task Force, to be chaired by Cooke and Donovan (Annex 4). The Panel believes that the successful outcome of the work of the Task Force will play an important role in improving advice on the conservation of western gray whales.

6 MULTIVARIATE ANALYSIS

At its April 2006 meeting, the IISG discussed a study by Gailey *et al.* of the potential effects of 2005 construction activities on WGWs. In the authors' presentation of that study they concluded, *inter alia,* that no detectable effects on whale behaviour or distribution had occurred. However, they properly acknowledged that that finding had been based on univariate analyses that did not incorporate data on environmental factors including underwater sound from the construction activities. Accordingly, the IISG considered the no-effects result to be inconclusive and deferred any judgement until a more detailed multivariate analysis, incorporating data on noise and other environmental parameters, had been completed.

In preparation for the present meeting, the Panel considered two documents on this topic. The first (WGWAP 1/INF.1) presented the preliminary results of the multivariate analysis undertaken by Gailey *et al.* on data from the 2005 construction season. The second (WGWAP 1/INF.2) summarized a technical review of that same preliminary multivariate analysis by Gailey *et al*. The review had been commissioned by AEAT, a consultant for the potential lenders, and had taken place in the summer of 2006. The final analysis by Gailey *et al*. is expected to be completed this winter.

The analysis in document WGWAP 1/INF.1 focussed on whale behaviour, including data on surface-dive-respiration parameters, movement patterns and overall distribution and numbers, in relation to modelled estimates of sound levels produced by construction activities during installation of the PA-B platform's concrete gravity-based structure (CGBS). The analysis was intended to contrast whale behaviour before, during and after the CGBS construction period. However, the authors acknowledged that limited data were collected during the pre-construction period and no behavioural data were collected (due to weather) during two of the four phases of construction – tow-in and positioning of the CGBS. Unfortunately, these are the two loudest

Another apparent effect was a change in diving behaviour: dives increased in length with decreasing distance to the CGBS location. Although there are multiple possible explanations for such an observation, the time spent diving may be an indicator of foraging effort or success and should be explored more carefully. In this case, the Panel **suggests** that reanalysis based on percent of total time below the surface would be a useful follow-up to assess possible changes in foraging effort.

In view of the endangered status of this population, the observed offshore displacement, change in diving pattern, and other potential effects warrant additional scrutiny and follow-up. Points to consider include the following:

(1) From a conservation perspective, the objective of the study was to test the null hypothesis that construction noise and associated activities have no impact on the population. The observation of apparent effects on individuals (e.g. offshore displacement) suggests that a population impact may occur and this possibility

realistic; it may take much longer for the distribution of whales to return to normal. Use of the 10-minute interval as the explanatory variable could, therefore, seriously underestimate the true effect of noise.

(0) Finally, during previous reviews of Sakhalin Energy's activities and evaluations of the potential effects of construction noise, the panels have repeatedly indicated that noise level alone may not be the most relevant or the only indicator of the influence of noise on the whales. The analysis apparently did not take into account the total noise energy exposure, duration of exposure, frequency and bandwidth of the noise, amount of variation in noise levels over time, occurrence of noise spikes, etc. In particular, the timescale involved in the whales' response to a stimulus (e.g. movement offshore) and in the subsequent decay of the response (e.g. movement back towards shore) needs to be considered explicitly in an analysis. This and other aspects of the noise exposure ought to be considered and explored before reaching firm conclusions about potential effects.

The Panel commends Gailey and his co-investigators for progress on the multivariate analysis. They have developed a useful tool for investigating an issue that has been a major source of concern. As is usually the case with such complex analyses, however, the Panel believes more refinement is necessary before reliable conclusions can be drawn regarding the effects of the 2005 construction activities on the behaviour and distribution of gray whales.

The shortcomings of the analysis were in part a function of the study design and implementation. It is disappointing that adequate baseline (pre-exposure) data were not collected and that behavioural data were not collected during the tow-in and positioning phases of the CGBS installation. At this meeting (and see item 7 below), Sakhalin Energy informed the Panel that again in 2006, the company had faced a choice between (a) delaying construction activities and collecting adequate baseline information, with the attendant risk that construction would not be completed in that season and further work would be required in 2007, and (b) initiating construction without observers in place. Sakhalin Energy noted that its decision had been based, at least in part, on its interpretation that one aspect of the IISG's advice (i.e. that work should start as early in the season as possible) took precedence over another (i.e. that collection of baseline data should occur). The Sakhalin Energy decision in 2006 now means that those data will suffer some of the same inadequacies as suffered by the 2005 data. Although the Panel understands that logistics in this region are difficult, it also believes that a stronger effort should have been made to initiate whale observations at least in synchrony with construction activities in 2006

A multivariate analysis of the kind performed is a reasonable means of identifying explanatory and response variables that might be important. An actual quantification of the response requires the development of a model of whale response and fitting it to the data. The analysis performed shows that movement of whales offshore is a likely response to noise, but it is insufficient for quantifying the extent of movement.

The Panel **recommends** that:

0) The above 'points to consider' be taken into account in the final report on the multivariate analysis of 2005 data.

monitoring is not a precautionary approach because it means that gray whales could be exposed for up to ten hours to noise levels exceeding 120 dB, without triggering any mitigation measures. Q values lower than 5 either violate the criteria accepted earlier (2005) or unreasonably exceed the acceptable noise dose. For these reasons, the Panel **recommends** that noise exposure criteria developed in the IISG report and intended for application in the 2006 construction season be followed during the 2007 season and thereafter unless, during the interim, sound exposures below the recommended thresholds are found to result in unexpected adverse effects. In addition, the Panel **requests** that the following information be provided, well in advance of its next meeting:

(0) all acoustic data from buoys at the edge of and inside the Piltun feeding area, reported in standard formats, e.g. dB re 1 μPa RMS levels for 1-minute intervals;

(0) actual day-by-day activities for each vessel involved in the June-August 2006 construction work;

(0) data on whale distribution for 2006, corrected for effort, analyzed with respect to noise levels, and compared to appropriate historical data (as explained above);

(0) an analysis of the relationship between the 2006 acoustic data and concurrent behavioural observations.

7.3 Monitoring Activities by Independent Groups

During the 2006 construction season two independent groups were involved in monitoring underwater noise and WGW behaviour in relation to industrial activities in the region. One group, sponsored by International Fund for Animal Welfare (IFAW) and involving Panel members Vedenev and Tsidulko, deployed sonobuoys on the nearshore WGW feeding area for a 2-week period in July. Among the objectives of this effort was to obtain 'real time' acoustic data for integration with data on whale behaviour and distribution collected by the other group, sponsored by WWF-Russia (WGWAP 1/INF.5). Vedenev gave a brief presentation on the IFAW acoustics work and Spiridonov made a brief introduction of WGWAP 1/INF.5 which described the shore-based observational work.

The Panel recognises the potential value of having such independent groups in the field, for at least three reasons. Firstly, their presence on-site provides a means of checking to ensure that the various companies and contractors operating in the region comply with stated rules, plans, policies and practices. The above information concerning timing of the start of Sakhalin-II Phase 2 construction work and the start of industry-sponsored monitoring in 2006 provides an example.

Secondly, as explained in Vedenev's presentation at the meeting, where he showed the capabilities of his acoustic monitoring system, field efforts by independent groups can demonstrate or test alternative technical and methodological approaches to research and monitoring. This may have a positive effect on work sponsored by the oil and gas companies and help to ensure that the equipment and procedures used for that work are truly 'state of the art' and meet the highest possible standards. For example, Vedenev's satellite-linked acoustic buoys are deployed and retrieved using a sailing ship (that remains outside of the feeding area) and a small (3 m) inflatable boat, whereas Sakhalin Energy's heavier (> 100 kg) buoys require a larger, noisier ship (that must move onto the feeding area) and larger (5 m) inflatable boat for deployment and retrieval. Finally, data and results

flying at lower levels generally introduces more sound energy into the near-shore habitat and therefore is more likely to cause disturbance to the whales there. The Panel **agreed** that it would review this issue and provide Sakhalin Energy with a recommended minimum altitude and distance from the shore, for these types of surveys prior to the 2007 construction season.

Coverage in 2006 was opportunistic and coastal areas north of the mouth of Piltun Lagoon were not covered at all even though these northern areas were included within the scope of coverage as recommended by the IISG. The Panel **recommends** that the northern areas be surveyed by helicopter monthly during the open-water season. Although these areas may be searched by research groups as they move into and out of the region, ground vehicles are not sufficient for complete coverage because the beach zone is not always visible from the road.

The Panel **endorses** the relatively detailed protocols and advice given in the IISG report under the heading 'Carcass Detection, Salvage and Necropsy'. It also **recommends** that as a minimal response to the finding of a gray whale carcass, Sakhalin Energy make sure that it is photographed promptly and that IUCN is notified by phone or e-mail as soon as possible. Then, based on the condition of the carcass (as inferred from the photographs), the Panel will make recommendations concerning what materials should be collected etc.

9 DNA AND OTHER BIOLOGICAL SAMPLING

In terms of DNA and other biological sampling, the Panel refers Sakhalin Energy to the IISG report where detailed advice was provided. Here, it **recommends** that a tissue sample (preferably skin or bone) be collected as soon as possible if any carcass of a baleen whale is found and there is any possibility that it could be a gray whale.

10 SATELLITE TAGGING

procedures have, by necessity, been evolving over time. Some aspects of the evaluation are complete (e.g. the location of the PA-B platform and the pipeline route have been decided) and require no further attention by this Panel. Other aspects remain open for consideration. Some of these may be closed after further planning and review, and some will require ongoing attention for the lifetime of the project.

This Panel (and preceding panels, as can be seen in their reports) have attempted to address a wide range of issues surrounding oil spil

of the map resources available. It was agr

Yablokov (WGWAP 1/INF.19), a member of this Panel. Its membership includes Russian scientists who have been involved in WGW research. Normally the group meets twice per year – once in early spring and once in late autumn or winter. The Strategic Group is recognised officially by Rosprirodnadzor, which is the Russian State Federal Agency responsible for management of living resources

preliminary idea of what this might involve (e.g. several companies are now using 4-D seismic surveys to determine how fields are changing in response to production and there is a need for seismic surveys related to gas).

(4) The Panel considers it extremely important that the issues of oil spill prevention and response are addressed rigorously. In order to enable the Panel to consider these issues in a comprehensive fashion, it is important that third parties provide technical input (via IUCN) that may be relevant to the protection of gray whales and related biodiversity from oil exposure.

(5) The Panel believes that it is essential to try to arrive at agreed protocols for certain key data needs, especially in those instances where more than one group of researchers are working. Without this it is difficult or impossible to combine datasets to obtain the maximum value from the research or to allow sensible comparison of conflicting results (one example that became apparent at the present meeting was that of behavioural data).

(6) In this regard, and notwithstanding issues of protection for data owners, the Panel believes there is great value in developing a comprehensive meta-database (ideally with the potential to link in with GIS for spatial data) of available data sources, in addition to the photo-identification data issue being addressed by the task force. The Panel recognises that a great quantity of data (sightings, behaviour, benthos etc) have been collected by a variety of groups and documenting this will allow the Panel to suggest analyses to answer particular questions as well as to determine data gaps where they exist.

(7) The Panel received a document at this meeting asking for an endorsement of a particular programme and it has also received the results of work undertaken in the region by groups other than those associated with Sakhalin Energy and the Russia-USA programme – the Panel notes that all documents will appear on the IUCN website and it believes that it is important to make clear on the website that appearance on there does not imply that any document, whatever the authorship, has been endorsed (or even necessarily considered) by the Panel.

(8) It should be made clear to all that the level of review assigned to any study presented to the Panel will be of equal rigour, whatever its origin.

(9) Compliance monitoring may not seem to be an issue for a scientific panel but it is essential that for any recommended and agreed mitigation measure, the Panel can be assured that it (and any associated scientific monitoring) is implemented. Therefore, it is likely that the value of and need for independent compliance monitoring will form part of the Panel's recommendations in the future.

(10) Given the Panel's mandate and the need to examine cumulative effects on whales, it is essential that IUCN begin efforts as soon as possible to engage other companies, notably Exxon Mobil and BP, in the WGWAP process, even if initially this does not mean as full partners.

Malme, C.I., Würsig, B., Bird, J.E. and Tyack, P. 1988. Observations of feeding gray whale responses to controlled industrial noise exposure. Pp. 55-73 in W.M. Sackinger, M.O.

Weller, D.W., Burdin, A.M., Bradford, A.L., Lang, A.R., Tsidulko, G.A., Kim, H.W. and Brownell, R.L. Jr. 2006. Status of western gray whales off northeastern Sakhalin Island, Russia, in 2005. Document SC/58/BRG3, Scientific Committee, International Whaling Commission, Cambridge, UK.

TABLE OF RECOMMENDATIONS

Reference	Cross-Reference	WGWAP Recommendation & Requests	Responsible Party	Target Completion Date
		(2) The study would benefit from an exploration of the relationships among the predictor variables and among the response variables. For example, response variables may be related, given that they depe Td6 0 Tdgme 1 g3.06 ref76.56 733.5-iC 0.879 h.7.04 6107.98 -7.3.06 ref76.56 e		

Reference	Cross-Reference	WGWAP Recommendation & Requests	Responsible Party	Target Completion Date
WGWAP 1/005	WGWAP 1/3 - Section 6.0	The Panel **recommends** that: (1) The above 'points to consider' be taken into account in the final report on the multivariate analysis of 2005 data. (2) In the final report, and in any other outlet citing its findings (e.g. on Sakhalin Energy's website), the study's limits, as outlined above e.g. in relation to the lack of baseline (pre-disturbance) behavioural data and the failure to collect behavioural data during the two loudest phases of the construction activity, be clearly acknowledged. It should not be claimed that the extent of the whales' response to noise, such as movement offshore, has been quantified. (3) The foregoing concerns and suggestions be considered in analyses of effects using 2006 data and also in the planning and decision-making process for data collection and analysis in 2007.	SEIC	

MONITORING WHALE BEHAVIOUR & INDUSTRIAL NOISE

WGWAP 1/006	WGWAP 1/3 - Section 7.1	The Panel **recommends** that it be provided with a full analysis using effort-corrected data on distribution, for each year that such data are available, overlaid onto the appropriate acoustic 'footprint' information. The results should be integrated to produce an appropriate multi-year comparison of distribution, particularly for years with and without significant anthropogenic noise	SEIC	
		The Panel **recommends** that noise exposure criteria developed in the IISG report and intended for application in the 2006 construction season be followed during the 2007 season and thereafter unless, during the interim, sound exposures below the recommended thresholds are found to result in unexpected adverse effects.. In addition, the panel **requests** the following information for its next meeting (spring 2007): (1) All acoustic data from buoys at the edge and inside the feeding area, reported in standard formats, e.g., dB re 1 µPa RMS levels for 1 minute intervals.	SEIC	

Reference	

Reference	Cross-Reference	WGWAP Recommendation & Requests	Responsible	

Report of the First Meeting of the

Reference	Cross-Reference	WGWAP Recommendation & Requests	Responsible Party	Target Completion

Reference	Cross-Reference	WGWAP Recommendation & Requests	Responsible

ANNEX 2

Provisional Agenda for WGWAP Meeting

Chair – Randall Reeves (WGWAP)

9 November

13:00-13:15	**Opening of panel session** – Adoption of agenda – Discussion of report drafting procedures	
13:15-13:45	**SEIC presentation on mid- to long- term work plan**	Presentation
13:45-15:00	**Annual population assessment** – Annual assessment of WGW "biological and demographic state" – Discussion and agreement on what such an assessment entails and how the work will be carried out	WGWAP 1/INF.7 WGWAP 1/INF.22 WGWAP 1/INF.23 WGWAP 1/INF.24 WGWAP 1/INF.25
15:00-15:15	**Break**	
15:15-17:30	**Photographic identification of WGWs** – Integration of photo-identification catalogues	WGWAP 1/INF.3 WGWAP 1/INF.8 WGWAP 1/INF.9 WGWAP 1/INF.22 WGWAP 1/INF.23 WGWAP 1/INF.24 WGWAP 1/INF.25
17:30	**Adjourn for the Day**	
19:30	**IUCN hosted dinner**	

10 November

08:30-09:45	**Multivariate analysis** – Briefing from SEIC and discussion of multivariate analysis of 2005 field work	WGWAP 1/INF.1 WGWAP 1/INF.2
09:45-10:15	**Monitoring whale behaviour and industrial noise**	WGWAP 1/INF.4 WGWAP 1/INF. 26 WGWAP 1/INF. 28
10:15 -10:30	**Break**	
10:30-11:45	**Monitoring whale behaviour and industrial noise contd.**	
11:45:12:15	**Monitoring activities by independent groups**	WGWAP 1/INF.5 WGWAP 1/INF.6 WGWAP 1/INF. 27
12:15-13:15	**Lunch**	
13:15-14:00	**Carcass detection & salvage** – ImplemgETdDC BTa rrieg1fhreW6(as)6(etect/)8((& s7l)93)12(apg frog5(5)rhreWm:00)]TJETEM	

11 November

08:30-09:00	**Day 2 – Unfinished business**	
09:00-09:15	**Last winter's oil spill** – Update on bird die-off in Hokkaido in early 2006	
09:15-09:45	**Marine oil spill prevention and response** – Offshore oil spill response in dynamic ice conditions	WGWAP 1/INF.15 WGWAP 1/INF.16 WGWAP 1/INF.17 WGWAP 1/INF.18
09:45-10:15	– Status of oil spill prevention and response issues from previous meetings	WGWAP 1/INF.14
10:15-10:30	**Break**	
10:30-11:30	**Marine oil spill prevention and response contd.** – Development of a comprehensive overview framework for assessing the status of oil spill prevention and response activities	Panel discussion
11:30-12:00	**Mapping and spatial information** – Status of oil spill prevention anDC BT/TT1 1 Tf-0.00fca38 Tw 9 0 9 iesbe/MCIefit43 0 w 9 0 0 dat	

ANNEX 3

List of documents distributed in connection with the first meeting of the WGWAP

Document Ref.	Document Title	Status
WGWAP 1/1	Provisional agenda	Public
WGWAP 1/2	List of documents distributed in connection with the first meeting of the WGWAP	Public
WGWAP 1/INF.1	Western gray whale movement, behaviour, and relative abundance in relation to sounds generated by the installation of a concrete gravity base structure and vessel activities	Confidential
WGWAP 1/INF.2	Review and MOM for western gray whale movement, behaviour and relative abundance in relation to sounds generated by the installation of CGBS and vessel activities	Confidential
WGWAP 1/INF.3	Summary information for a catalogue of photo-identified western gray whales	Public
WGWAP 1/INF.4	Report of monitoring results – whale behaviour and industrial noise - from 2006 construction season	Confidential
WGWAP 1/INF.5	Preliminary results of observations on Western Pacific gray whale distribution and behaviour in the summer 2006 during the construction of the offshore pipeline of the “Sakhalin-2”	Public
WGWAP 1/INF.6	Report of monitoring results from 2006 construction seasons	Pending
WGWAP 1/INF.7	Population assessment of Western Gray Whales in 2006 - IWC SC BRG30	Public
WGWAP 1/INF.8	Western gray whales off Sakhalin Island, Russia: A catalogue of photo-identified individuals - IWC SC BRG2	Public
WGWAP 1/INF.9	Updated report on SEIC Photo-ID	Confidential

WGWAP 1/INF.23	Extract from the 2006 IWC Scientific Committee Report, Annex F: Report of the Sub-Committee on Bowhead, Right and Gray Whales	Public
WGWAP 1/INF.24	Extract from the 2005 IWC Scientific Committee Report: Western north Pacific stock of gray whales	Public
WGWAP 1/INF.25	Extract from the 2006 IWC Scientific Committee Report: Western north Pacific stock of gray whales	Public
WGWAP 1/INF.26		

ANNEX 4

Terms of Reference and work plan for Photo-id Task Force

Objectives

(a) to compare the catalogues[3] of the Russia-USA programme and the Institute of Marine Biology (Vladivostok) programme to arrive at an agreed list of known individuals;

(b) to suggest appropriate further collaboration, taking into account the need for annual updating of the comparison, and for consistency in: (i) identification of new individuals; (ii) identification of re-sightings; and (iii) classification of photographic quality.

Methods

1. Conduct a cross-matching of the two existing catalogues, involving: (a) the people involved in the development and matching of the individual catalogues; and (b) additional experienced matchers:
   - determine, for each whale in each catalogue, which whale, if any, it matches in the other catalogue;
   - resolve doubtful cases, if necessary by examining all available photographs of the whales involved.

2. Discuss, and if possible make recommendations for, further work, including:
   - consistent protocols for the assessment of photographic quality, matching of individuals, and inclusion of definite and candidate new whales in the catalogues;
   -

Work plan

	Task	Completion
1	Exchange catalogue CD's between the two teams.	mid-January 2007
2	Each team to conduct an initial in-house cross-matching of the catalogues. Results to be reported back to the Task Force, including any comments or questions and indication of any matches considered to be uncertain	mid-February 2007
3	External expert reviews results of each team's cross matching exercise and provides comments and advice, particularly with respect to inclusion and matching criteria, and uncertain matches	mid-March 2007
4	3-day hands-on workshop in Seattle, including persons from each team actively engaged in the photo-id work, plus the external expert under item 3, plus additional task force members as appropriate. The workshop shall resolve any questions arising during steps 1-3 and in particular resolve any doubtful or uncertain identifications. The workshop shall have access to the full sighting histories and photo archives of each team, so that any outstanding matching uncertainties can be resolved. It will consider and if possible make recommendations on a future process or processes	April 2007
5	Report of the Task Force, including the workshop, submitted to WGWAP	May 1 2007

Note: some task force members will be unavailable during May 2007 – the dates are 'pessimistic' and it may be possible to bring forward the schedule if circumstances permit

Contact persons for each team
Institute of Marine Biology: Olga Tyurneva
Russia-US team: Dave Weller

Safeguards

Data providers' rights will be protected. No use of the data will be made without the express permission of the data providers. Any use of the data by the WGWAP will protect the data providers' rights in accordance with paragraph 3(e) of the WGWAP TOR. Any