This short report intends to summarise the activities of the workshop and to present suggestions and make recommendations relating to the mitigation measures taken as part of the Dutch otter reintroduction programme.

As Chair of the OSG and the meeting, could I firstly express my gratitude and thanks to all who attended and contributed to the meeting in such a positive manner.

The topic of the meeting, reintroduction and associated mitigation, can be a sensitive and/or contentious issue, but it was good that the discussions etc, were not influenced by personal feelings, rather the importance of practical mitigation was stressed.

The meeting was opened by Professor Tom Serfass (University of Frostburg) who has been involved with otter reintroductions in the USA for over 20 years. He explained the holistic approach he has used, showing how the roles of the various stakeholders were interlinked, highlighting especially the need to make all, including the general public, aware of and involved in the project.

Hugh Jansman set the scene in the Netherlands, he described the background to the reintroduction programme, explaining the work to date and the genetic studies which have shown the breeding success of the reintroduced population. The data on Road Traffic Accidents (RTAs) were presented and each mortality individually examined. Eleven animals had died as a result of collisions with vehicles. The discussion that followed showed that some animals had travelled over 40 kilometres from the release site, with one approaching the German border. The general feeling of the OSG experts was that, if the breeding data were correct, this mortality was not too excessive.

The day ended with Egbert Beens making a presentation about the release area, showing a short film. This set the scene for day two.

The second morning was spent visiting different parts of the reintroduction and surrounding areas to see the mitigation measures that were already in place – fences, tunnels exit points from canals etc. It was also an opportunity to see the habitat around the release area, which appeared to be suitable habitat for otters. The problems were clear, the many roads that traversed the area were creating problems, these included traffic, between different wet areas and canals.

The afternoon began with an interesting presentation by Hans Bekker from Rijkswaterstaat. He explained the problems with fragmentation in the Netherlands and how the government operated a policy of integrating road, water and environmental issues into a single programme. For many it was an enlightening talk reflecting well on the Dutch Government’s approach to nature.

This was followed by four presentations by Messers. Chanin (UK), Lafontaine (France), Madsen (Denmark) and Kruger (Germany) on their own experiences in the use of mitigation measures in their respective countries. Although covering effectively the same topic, the difference in approach and interpretation, issues raised and background gave a broad picture of not only what has been achieved, but also what can be. The afternoon session concluded with Paul Yoxon explaining his experimental work using road reflectors on the isle of Skye to try and discourage otters from crossing the roads while there is traffic on the roads – these results were encouraging, with
mortality being apparently reduced in areas where the reflectors had been used.

The final day took the form of an open forum. A number of issues were raised including:

a. Traffic Density and Speed. The discussion reflected the concerns of RTAs which strangely were associated more with roads carrying less traffic than the main arterial routes. The question repeatedly raised was whether is was traffic volume or speed that was the real issue. Measure to mitigation the problem included the use of 'rumble strips' to warn otters of approaching vehicles and to advise drivers that they were entering an 'environmentally important' section of road, where animals are likely to be found. The main problem with this was that it was highly likely that individual animals will quickly get used to the noise. (This has been been shown to be the case in many other areas.) Also those people who drove too fast were unlikely to be influenced by the strips. Speed bumps and road realignments were considered as other possible alternatives. These, however, might prove to be difficult to achieve without the support of both the local community and the government. It was made clear that when discussing such measures, it should be pointed out that these were for the benefit of all animals. Also by reducing the risks of collisions, there would be less damage to vehicles and fewer injuries to people.

b. Fencing. In the discussion of fencing, the general feeling was that there might already be too much and, where both sides of a road had been fenced, this was itself a threat to wildlife – animals being unable to get off the road. One approach was to use 'one way gates' (already used successfully for badgers), placed along the fence, allowing the otters to exit the road. These was some concern that the fencing policy was following a 'fire brigade' approach, effectively building measures after an event. This was not seen as practical. Part of the problem of determining the effectiveness of these measures was that at present there were too few otters in the area.

c. Reflectors. It was agreed that these too should be considered and that it might be worth setting up a small experiment to see how effective they were and how they might be used on some roads – benefiting all wildlife using these roads.

d. Protected Areas. It was suggested that consideration should be given to amending legislation to change the maximum speed limits in National Parks and other protected areas from 80 to 60 kilometres per hour.

A novel approach was to introduce a programme into car satellite navigation systems which highlighted areas of high wildlife value, warning of the dangers of animal collisions and speed restrictions. (It was agreed that ideas would be better dealt with at a higher IUCN level, and the JC agreed to contact the Chair of the SSC to discuss.)

e. Habitat Manipulation. Access from the river banks was considered as a possible issue, it being suggested that measure might be taken to heighten the canal sides in areas considered problematic – effectively manipulating exit areas.

f. RTAs. A general discussion followed in which the question "Are RTAs a serious problem?" was addressed. The consensus was that the actual number of animals that had been killed was not excessive or exceptional, although such loss might affect the genetic health of the reintroduced population. Such is the the habitat infrastructure (roads, wet areas, canals etc.) regardless of the mitigation in place, animals will continue to die. The general public must be made aware of this and understand that RTAs are an accepted part of the reintroduction programme and expanding otter population.

g. Monitoring the Success of Mitigation Measures. There was, however, a need to monitor the
success of the measures so far employed. It was pointless to continue spending thousands of euros without determining whether or not they are effective and, in the case of tunnels, actually used. Some evidence can be found in places that are regularly used, with clear trails been seen. However, in most areas, this is not the case, the problem being that there are too few otters. Suggestion made included the use of meters to record animals that have been fitted with transponders, sand at the entrances to tunnels, hair traps for DNA analysis.

h. Fyke Nets. The question of fyke nets was raised, the being seen as a serious issue. It was pointed out that before a new release should be considered, agreements should be made with the local fishermen to ensure that all such nets were fitted with stop guards, which stopped otters from entering them in pursuit of food. This was, in fact, currently taking place, and it was hoped that such an agreement would be achieved in the near future. The question of what should be done when the population is expanding was discussed in some detail. It was agreed that these areas (into which populations are expanding) too should be included in any contingency plan re the use of stop guards and fyke nets – effectively as new areas were colonised, these too should be subject to the stop guards policy. It was also agreed that in addition to the reintroduction area, fishermen should have to fit guards along those water ways considered to be important corridors along which otters might travel. The management of fykes nets was considered to be critical for any further reintroduction programme. Until such time as these agreements have been reached with the fishermen, there should be a presumption againt any reintroductions.

i. The Future. All the experts were in agreement that the reintroduction programme should continue and to increase the chances of success further animals had to be introduced. The source of animals was discussed as was the concerns about the release and mitigation measures. It was not felt that the area had reached carrying capacity for otters. There was sufficient suitable habitat in the immediate surrounding countryside into which animals could disperse.

CONCLUSION
The OSG Experts called in to examine the mitigation measures endorsed the:

• work being done by all involved in the project;
• approach being taken by those managing the project;
• mitigation measures currently in use, but felt that their success should be monitored before further extensive construction work is undertaken. Tunnels in particular should be managed to ensure the entrances were always accessible.

The OSG experts also felt that it was important that new otters be introduced as soon as pobbile into the area. This would reinforce the existing population, increase its chances of success and also increase the genetic diversity and result in a 'fitter' population. Evidence from other areas has shown that where populations are small and inbreeding occurs, the resulting loss of genetic diversity has led to animals being born with abnormalities. It was therefore felt that for the success of the project, more animals must be reintroduced.

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