WORKING GROUP ON PER-STOCK, PER-YEAR DOLPHIN MORTALITY CAPS

Ensenada, Mexico

29 January 1999

REPORT OF THE CHAIRMAN

The Working Group on per-stock, per-year dolphin mortality caps held its second meeting in Ensenada, Mexico, on January 29, 1999, under the Chairmanship of Biol. Harold Müller-Gelinek Ycaza, of Ecuador. The attendees are listed in Appendix 1.

The Agreement on the International Dolphin Conservation Program (IDCP) calls for an equitable system for the assignment of dolphin mortality limits (DMLs), including per-stock, per-year dolphin mortality caps, and requires that a system for allocating these caps be established within six months of the entry into force of the Agreement.

The IATTC staff summarized the four proposals for such a system presented by Colombia, Ecuador, Mexico, and Spain (Appendix 2). Most Parties had agreed that caps should be applied only for the seven stocks of dolphins most frequently associated with yellowfin tuna, and that accidental mortalities should be disregarded.

Final data on mortalities of dolphins by stock for 1998 were not yet available, because stock identifications were ambiguous or missing in some cases, and these mortalities would have to be examined and prorated among stocks, a process which would probably not be finished until May 1999. However, it seemed likely that in 1998 all mortality levels would be below the cap of 0.1% of the minimum estimated abundance (N_{min}) of a stock established by the IDCP Agreement.

The IATTC staff said that a decision was now required as to what type of system of limits to implement. There were two general alternatives: 1) a 'global' system, under which the mortality limits established for each stock would not be assigned to nations or vessels, and any mortality would count against the corresponding overall stock limit, and 2) a system of allocating each overall stock limit among states in accordance with some formula, after which each state would administer its own limits as it saw fit. Under either system, fishing on dolphins by all fleets would cease for the rest of the year if the overall mortality limit of 5,000 dolphins was reached. With the global system, as soon as the mortality of any stock reached the limit for that stock, all fleets would have to stop fishing on that stock, in pure or mixed herds. With the system of limits allocated to nations, however, national fleets would operate independently: if one fleet reached its assigned quota for a certain stock, it would have to stop fishing on that stock for the rest of the year, but this would not affect the activities of other fleets unless the overall limit for that stock was reached, in which case fishing on that stock, in pure or mixed herds, would be prohibited for all fleets.

Of the four proposals presented, three were based on global limits. The Mexican proposal distributed the limits among national fleets on the basis of the past performance of each fleet and its utilization of the various stocks; it reflected the fact that different fleets fish on different stocks, and allowed fleets to continue fishing as before. The intention was to avoid allocating per-stock limits which were unlikely to be used.

The United States presented some preliminary general results of the recently-completed stock survey, which showed a moderate upward tendency in abundance for northeastern spotted dolphins and eastern

spinner dolphins, a substantial increase to about 100,000 for coastal spotted dolphins, and a slight decrease for western/southern spotted dolphins.

The IATTC staff noted that N_{min} would increase with any increase in abundance, and that Annex 3 of the IDCP Agreement required the Parties to establish the mortality caps.

The United States raised the question of how to deal with the stocks not contemplated in the various proposals, particularly the coastal spotted and Central American spinner stocks, and asked why the Mexican proposal included striped dolphins and coastal spotted dolphins, in addition to the seven stocks most often associated with the fishery. The IATTC staff pointed out that some stocks were only rarely involved in fishing operations, and that fishermen avoided the stocks whose behavior in the net could lead to problems. In 1997 0.1% N_{min} for coastal spotted dolphins was 22, and 26 animals had died in the fishery; no N_{min} had been calculated for the Central American spinner stock, and there was no mortality of that stock in the fishery. The Agreement required that N_{min} be estimated for all stocks associated with the fishery, but not that all stocks be taken into account when distributing DMLs. The Mexican proposal was a hypothetical example involving nine stocks and five nations, but this would change in reality. It was emphasized that the overall DML of 5,000 was a maximum, and was independent of any per-stock limits based on N_{min}.

Some delegations thought that more data on dolphin abundance was required before a decision on distributing the limits was made, and that any system adopted should be as simple as possible. Others pointed out that what was lacking was time, not information, and that a system had to be established within six months of the entry into force of the IDCP Agreement, which was now imminent.

The IATTC staff noted that historical data were not necessarily a good indicator of future performance, and cited the example of one fleet which in a very short time had transformed its performance, and also that vessels could change fishing areas, and that this might affect the mortality for that nation's fleet.

Mexico stated that any system must be both just and fair, and that it was not fair that one national fleet, by using up a per-stock limit, could effectively close the fishery for all other fleets. The global proposals would result in a race which could paralyze the fishery, whereas the Mexican system was flexible, and could be adjusted each year to reflect changes in the fishery.

Ecuador, noting that the Mexican proposal went against the precedent of equal allocation, proposed that the staff prepare a document for the 63rd IATTC meeting in June 1999, reflecting the two approaches and summarizing and clarifying the various proposals, and suggested that this document form the basis for a decision.

The United States reminded the meeting of the need to reach a decision soon in order to fulfil the mandate, and commented that, although the Mexican proposal had some good points, there remained the question of the states excluded from the proposal. He proposed a two-tier approach: adopt a simple, global system for 1999 and 2000, while the per-stock limit was 0.2% N_{min}, and later establish a more sophisticated system more akin to the Mexican proposal.

Mexico also noted the urgency of the matter, since the system would have to be in place by July or August 1999, and stressed that its proposal allocated each nation a quota proportional to its effort, and perhaps should include a category of 'other nations.' Mexico also pointed out that without an allocation of the mortality caps, if the mortality in 2001 were like that in 1997, when the mortality for one stock exceeded 0.1% N_{min}, the fishery involving that stock would be closed to all fleets. With the increasing number of sets on dolphins, it was likely that 0.1% N_{min} would be exceeded for other stocks as well.

Ecuador, noting that about 85% of the sets made on dolphins involved spotted dolphins, in pure and mixed herds, about 20% involved spinner dolphins, likewise in pure and mixed herds, and about 2% common dolphins, argued that this supported the idea of global quotas, since the Mexican proposal would effectively deny access to the fishery for many nations.

The European Union supported the US proposal of adopting a simple global quota system during the period of transition, with real-time monitoring of observer data, and thus dolphin mortality. He stressed that the overriding objective was to keep the mortality levels low, and pointed out that the proximity of the actual mortality and 0.1% N_{min} varied considerably among stocks. He proposed that Colombia, Ecuador, and Spain present a joint proposal based on the available data.

Mexico pointed out that the definition of a stock was based largely on geographical distribution, and that no policy could change this fact of nature. Allocation of the limits should be a function of utilization, and should be based on historical data, by area and stock. It would be pointless, for example, for the Ecuadorian fleet to be assigned a limit for northern common dolphins, since that fleet had never fished in that stock's area of distribution. An analogous situation would be if the number of sets on FADs were limited: under a global allocation system Mexico would be given half the quota, even though its fleet fished very little on FADs, thus penalizing other countries whose fleets did use this method of fishing. He also noted that once the IDCP Agreement entered into force some vessels which were currently fishing "dolphin-safe" might no longer do so.

Colombia noted that tuna was a high-seas resource, to which all nations had equal right of access, and that events such as an El Niño could change the distribution of stocks. Colombia had already been penalized enough by the limitation of its fleet capacity, and under the Mexican proposal it would be penalized further. He said that no decision should be taken until more data were available.

Mexico raised the question of how to deal with sets with very high mortality, which occurred only very rarely but should be taken into consideration when establishing any system.

The United States presented its proposal for distributing per-stock mortality limits (Appendix 3). The meeting noted that for 1999 and 2000 it resembled most of the other proposals in that it assigned global, rather than national, limits. It was agreed that at the meetings scheduled for Miami in March 1999 and Guayaquil in June 1999 only two proposals should be considered, one based on global limits and the other on national limits. The United States would prepare the first, and Mexico the second. The United States said it could study the proposals presented, and stressed that its own proposal was only for 1999 and 2000, and that for subsequent years a system based on allocations by country should be worked out.

Mexico suggested that the Working Group meet in late May, shortly or immediately before the meetings in Guayaquil, by which time final data on dolphin mortality in 1998 would be available. A decision on this was postponed until the meeting in Miami on March 1 and 2.

Spain reminded the working group that a real-time reporting system would be necessary to support any mortality caps.

Appendix 1.

Comisión Interamericana del Atún Tropical - Inter-American Tropical Tuna Commission

REUNIONES DE LOS GRUPOS DE TRABAJO - MEETINGS OF THE WORKING GROUPS

Ensenada, B.C., México

27 - 29 de enero 1999 – January 27-29, 1999

ASISTENTES – ATTENDEES

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Appendix 2.

PROPOSAL OF MEXICO

Percentage distribution among national fleets of per-stock dolphin mortality limits, based on 1997 data.

Stock	Colombia	Mexico	Panama	Venezuela	Vanuatu
Northeastern spotted	1.5	65.0	1.0	24.3	8.3
Southern/Western spotted	11.1	40.4	3.9	30.2	14.4
Eastern spinners	2.4	73.2	1.9	15.2	7.4
Whitebelly spinners	9.8	42.0	1.9	33.7	12.7
Northern common	0.0	97.0	0.0	3.0	0.0
Central common	0.3	4.3	5.5	74.5	15.4
Southern common	0.0	0.0	14.5	84.4	1.1
Striped	0.0	4.9	28.7	28.4	37.9
Coastal spotted	0.0	63.5	0.0	25.3	11.1
Other	5.1	49.1	1.3	40.8	3.7

To facilitate a comparison of the various proposals, the table below shows the percentage species/stock limits of the Mexican proposal in numbers of animals for all categories except "Other." These numbers were obtained by multiplying the percentages in the table above by 0.1% N_{min} for the corresponding species/stock.

The sum of the 0.1% N_{min} species/stock limits exceeds the total mortality limit of 5,000 animals. However, with the current levels of incidental mortality in the fishery, it is unlikely that all of the species/stock limits would actually be reached.

Stock	Colombia	Mexico	Panama	Venezuela	Vanuatu
Northeastern spotted	8	371	6	199	61
Southern/Western spotted	94	455	19	352	213
Eastern spinners	3	368	4	115	30
Whitebelly spinners	51	424	8	251	124
Northern common	0	561	0	2	0
Central common	0	8	2	140	48
Southern common	0	0	0	0	0
Striped	70	890	93	430	204
Coastal spotted	1	9	1	9	2

PROPOSAL OF SPAIN

Stock	0.1% N_{min}	Adjusted to 5000	Difference
Northeastern spotted	649	559	90
Southern/Western spotted	1,145	987	158
Eastern spinners	519	447	72
Whitebelly spinners	872	752	120
Northern common	563	485	78
Central common	207	179	29
Southern common	1,846	1,591	255
Total	**5,800**	**5,000**	

As the sum of all 0.1% N_{min} is 5,800, and thus exceeds the total limit of 5,000 established by the IDCP, an adjustment is made by multiplying all figures by the ratio 5,000/5,800. The result is the "Adjusted to 5,000" column. The difference between this figure and 0.1% N_{min} is shown in the "Difference" column. In order to keep total mortality under the 5,000 limit, management decisions will have to be made to handle these differences. For instance, if it is desired to increase the mortality of the northeastern spotted dolphin stock by 90 animals (the difference between the adjusted value and 0.1 % N_{min}), another stock would have its "Adjusted to 5,000" value adjusted again, reducing it by the 90 animals transferred to the northeastern spotted stock.

Example:

Stock	0.1% N_{min}	Adjusted to 5000	Difference	Final adjustment
Northeastern spotted	649	559	90	649
Southern/Western spotted	1,145	987	158	897
Eastern spinners	519	447	72	519
Whitebelly spinners	872	752	120	680
Northern common	563	485	78	485
Central common	207	179	29	179
Southern common	1,846	1,591	255	1,591
Total	**5,800**	**5,000**		**5,000**

This proposal also includes a reserve of an unspecified number of dolphins, to be used for new vessels entering the fishery, to reduce the problem of communication delays that may cause an excess in mortality, and to compensate for sets with high mortality ("disaster sets").

PROPOSAL OF ECUADOR

Proposed global per-stock mortality limits:

Stock	1999	2000	2001
Northeastern spotted	1,298	973	649
Southern/Western spotted	2,290	1,717	1,145
Eastern spinners	1,038	777	519
Whitebelly spinners	1,744	1,166	872
Northern common	1,125	844	563
Central common	415	310	207
Southern common	3,691	2,769	1,846

After 2001, if all mortality levels remain below 0.1% N_{min}, global limits would continue; otherwise "sustainable management" is applied to that stock.

Alternative

Divide the per-stock limits evenly among all Class-6 vessels operating in the EPO at the time the allocation is made. With the current number of vessels with DMLs (91), the per-vessel limits, rounded down to the nearest whole number, would be:

Stock	1999	2000	2001
Northeastern spotted	14	10	7
Southern/Western spotted	25	18	12
Eastern spinners	11	8	5
Whitebelly spinners	19	12	9
Northern common	12	9	6
Central common	4	3	2
Southern common	40	30	20

PROPOSAL OF COLOMBIA

Colombia proposes to manage the stocks with global limits. With the objective of keeping the number of dolphin populations subjected to limits to a minimum, three options are proposed:

a) Set global stock limits for the traditional seven stocks: northeastern and southwestern spotted, eastern and whitebelly spinner, and northern, central and southern common dolphins.

b) Because of the very low mortality of common dolphins, set stock limits for 4 stocks only: northeastern and southwestern spotted, and eastern and whitebelly spinners.

c) Because of the emphasis of the legislation on depleted stocks, set stock limits for only the 2 depleted stocks: northeastern spotted and eastern spinner dolphins.

Stock	Option A	Option B	Option C
Northeastern spotted	649	649	649
Southern/Western spotted	1,145	1,145	
Eastern spinners	519	519	519
Whitebelly spinners	872	872	
Northern common	563		
Central common	207		
Southern common	1,846		

Appendix 3.

PROPOSAL OF THE UNITED STATES ON PER-STOCK MORTALITY LIMITS

STEP 1. CALCULATED REMOVAL LEVEL:

Calculate a mortality limit for each stock intentionally or incidentally taken in the purse-seine fishery for yellowfin tuna (Table 1). The IATTC will continue to document the mortality of any species listed in the table and count that mortality against the 5,000 limit and the dolphin mortality limit (DML) for a vessel.

STEP 2. ESTABLISH WHICH STOCKS RECEIVE A STOCK MORTALITY LIMIT:

All stocks associated with the dolphin fishery shall receive a stock mortality limit (SML). Those stocks are highlighted in Table 1.

STEP 3. DISTRIBUTION AND MONITORING OF STOCK MORTALITY LIMITS

For 1999 the SMLs shall not be distributed among vessels or states.

The IATTC will implement the system for 1999 as follows:

1. The IATTC places 2% of each SML into reserve to ensure that the individual SMLs are not exceeded.

2. IATTC and national program observers radio mortality reports for these stocks to the IATTC on a weekly basis.

3. The IATTC provides weekly dolphin mortality estimates by stock to the nations fishing in the EPO.

If the mortality for any stock for which an SML has been established reaches 70% of the SML, the IATTC will notify nations immediately and request that they take such action as is necessary to avoid exceeding the limit.

If the SML for any given stock is exceeded, sets on that stock and mixed herds containing that stock will cease and the amount of the excess will be subtracted from the SML established for the next year.

STEP 4. PER-VESSEL ALLOCATION:

In the event that, under such a distribution system, the SML for any given stock is exceeded during two consecutive years, in the following year, the IATTC will allocate the SML for that stock among eligible vessels.

Only vessels that have been determined to be qualified in accordance with Annex IV of the Agreement on the International Dolphin Conservation Program and whose mortality rate (mortality per set) for that stock is below the average mortality rate for that stock for the previous three years will be eligible for these limits.

TABLE 1. Per-stock estimates of abundance (N) and minimum abundance (N_{min}), 0.2% N_{min} and 0.1% N_{min} stock mortality limits (SMLs), and 1997 dolphin mortalities.

Stock	N (x 1000)	N_{min} (x 1000)	0.2% N_{min}	0.1% N_{min}	1997 mortality
Spotted dolphin *(Stenella attenuata)*					
Northeastern stock	730.9	648.9	1,298	649	715
Western/Southern stock	1,298.4	1,145.1	2,290	1,145	1,024
Coastal stock	29.8	22.5	45	22	26
Spinner dolphin *(Stenella longirostris)*					
Eastern stock	631.8	518.5	1,037	518	391
Whitebelly stock	1,019.3	871.9	1,744	872	498
Central American stock	(16.4)	-	-	-	0*
Common dolphins *(Delphinus delphis & D. capensis)*					
Northern stock	713.7	562.7	1,125	563	9
Central stock	239.4	207.3	415	207	114
Southern stock	2,210.9	1,845.6	3,691	1,846	58
Striped dolphins *(Stenella coeruleoalba)*	1,918.0	1,745.9	3,492	1,746	80
Fraser's dolphin *(Lagenodelphis hosei)*	289.3	219.8	440	220	0*
Bottlenose dolphin *(Tursiops truncatus)*	243.5	192.3	385	192	10
Risso's dolphin *(Grampus griseus)*	175.8	128.9	258	129	0*
Rough-toothed dolphin *(Steno bredanensis)*	145.9	112.2	224	112	20
Pilot whale *(Globicephala spp.)*	160.2	142.7	285	143	5
Melon-headed whale *(Peponocephala electra)*	45.4	31.2	62	31	0*
Pacific white-sided dolphin *(Lagenorhynchus obliquidens)*	11.2	8.4	17	8	0*
Pygmy Killer whale *(Feresa attenuate)*	38.9	30.3	61	30	0
False killer whale *(Pseudorca crassidens)*	39.8	24.4	49	24	0
Killer whale *(Orcinus orca)*	8.5	6.3	13	6	0

Abundance estimates (N) from Wade and Gerrodette (1993, and unpublished data for northern and central common dolphins). Estimates of minimum abundance (N_{min}) calculated from PBR guidelines in Wade and Angliss (1997). * Mortality has occurred on this stock or species between 1986 and 1997.