Bahía de Samborombón Stripped Mullet Fishery

Assessment Tree

Including an Ecological Risk Assessment in Principles 1 and 2

Assessment Team

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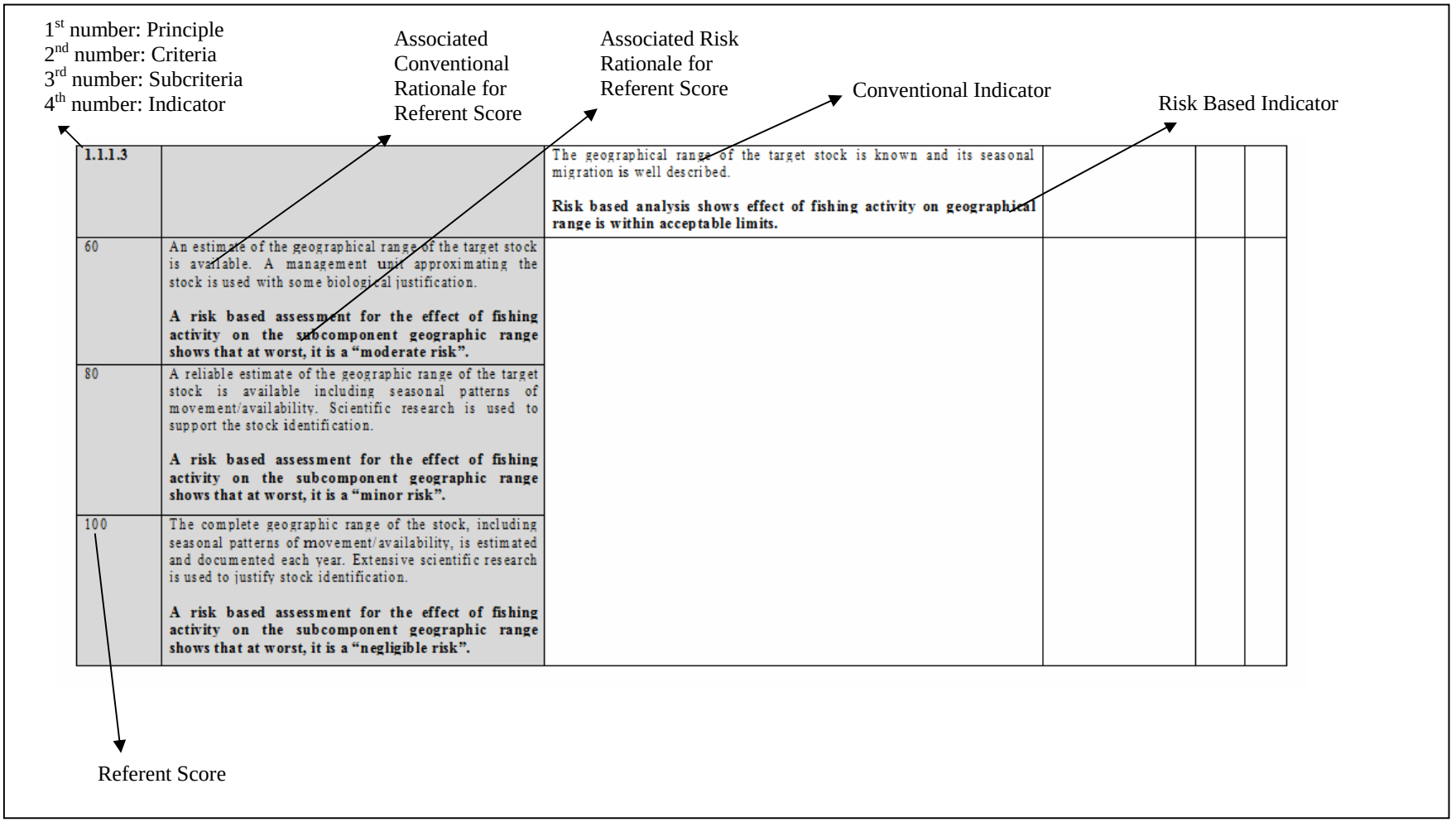
Introduction

The MSC nominated representative did not provide fully referenced authoritative Technical Report on the Bahía de Samborombón Mullet Fishery, requested in August-September-October, for consideration by the Assessment Team on which to base the Assessment Tree. The MSC representative provided a non-scientific statement to the Certifier on 20 October 2007, but this was insufficient and by this time the Assessment Team had been convened to prepare the Assessment Tree in early November. Consequently, it has been developed using a scoping document assembled by the Certifier and information gained from "First Stage" interviews conducted by the Assessment Team with Fishermen, the Province of Buenos Aires Management Authority and other professional stakeholders, including three Foundations and representatives of three National Universities.

Principle 1 in part covers the total range of *Mugil platanus* from Brazil to Patagonia and in some aspects the Bahía de Samborombón Mullet Fishery which is the unit of Trial Assessment. As there is a limited scientific record on mullet in Argentina, the Assessment Team has considered research from Southern Brazil and Uruguay and from related species elsewhere in the world in regard to Principle 1 and 2. As a requirement of the MSC, the three principles will be scored following the standard MSC Requirements for a formal certification.

In regard to the outcomes of Conventional Assessment for Principle 1 and 2, when the fishery has been scored less than 80, the SICA and PSA procedures outlined in the GASS/DD Fisheries instruction will be triggered and applied to evaluate the impact risks over the fishery.

Description of a Performance Indicator Table



1.1.1.3		The geographical range of the target stock is known and its seasonal migration is well described. **Risk based analysis shows effect of fishing activity on geographical range is within acceptable limits.**			
60	An estimate of the geographical range of the target stock is available. A management unit approximating the stock is used with some biological justification. **A risk based assessment for the effect of fishing activity on the subcomponent geographic range shows that at worst, it is a "moderate risk".**				
80	A reliable estimate of the geographic range of the target stock is available including seasonal patterns of movement/availability. Scientific research is used to support the stock identification. **A risk based assessment for the effect of fishing activity on the subcomponent geographic range shows that at worst, it is a "minor risk".**				
100	The complete geographic range of the stock, including seasonal patterns of movement/availability, is estimated and documented each year. Extensive scientific research is used to justify stock identification. **A risk based assessment for the effect of fishing activity on the subcomponent geographic range shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
Principle 1	**A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.**		**33.3**	
1.1 ***(MSC Criterion 1)***	**The fishery shall be conducted at catch levels that continually maintain the high productivity of the target population(s) and associated ecological community relative to its potential productivity.**		61.5	
1.1.1	There should be sufficient information on the target species and stock separation to allow the effects of the fishery on the stock to be evaluated.		16.7	
Weighting Commentary	No weighting is applied to the MSC Principles – these are equally weighted and each must attain a weighted score of 80 or more for certification to be granted. As the stock is considered to be above appropriate reference levels (see below), MSC Criterion 2 is not currently applicable to this fishery. Given the importance of MSC Criterion 1 (1.1 here) in determining the health of the stock, this criterion is weighted more heavily than MSC Criterion 3 (1.3). Within MSC Criterion 1, each element at the next level of the scoring hierarchy (1.1.1 to 1.1.6) is considered to be of equal importance. Similarly, within the 1.1.1 group of indicators (1.1.1.1 to 1.1.1.6), all are considered of equal importance.			

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	

1.1.1.1		The species are readily identified as adults and juveniles.		16.7	
60 80	Misidentification is possible and increases recording errors of catches, but this does not compromise monitoring to unacceptable levels. The target species are unlikely to be significantly confused with any other species.				
100	The species is readily identified by fishers and by regulators and is recorded appropriately.				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.1.2		The life history of the species, including fecundity and growth, is understood but the spawning processes and fertilization success are not known (Industrial fishermen in Brazil target the shoals of mullet arriving to reproduce of the Parana Coast line of Brazil and appear to be affecting recruitment into estuarine and inland nursery areas. A major hole in information exists with the reproductive aspects and the juvenile stages in the life history). (The nursery areas are well described and there is available information in Brazil, Uruguay and Argentina.) **Risk based analysis shows effect of fishing activity on population size is within acceptable limits.**		16.7	
60	There are gaps in information but the basis of the life history is understood. There is reliable data on fecundity and growth. Information is adequate to support a general population model without understanding of the regulation occurring in the spawning area(s). There is some information on spawning and nursery areas. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "moderate risk".**				
80	The life history of the species, particularly fecundity at size and growth rates, is clearly documented and understood. Information is adequate to support an appropriate population model. Spawning and nursery areas are well described. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "minor risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
100	The life history of the species is clearly documented and understood including behaviour and ecological interactions. Spawning and nursery areas are sufficiently well documented; fecundity at size, growth rates, and length and weight at age are monitored over time to detect trends and shifts in order to support closed area / seasons where this is deemed necessary. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
1.1.1.3	The geographical range of the target stock is known and its seasonal migration is well described. **Risk based analysis shows effect of fishing activity on geographical range is within acceptable limits.**		16.7	
60	An estimate of the geographical range of the target stock is available. A management unit approximating the stock is used with some biological justification. **A risk based assessment for the effect of fishing activity on the subcomponent geographic range shows that at worst, it is a "moderate risk".**			
80	A reliable estimate of the geographic range of the target stock is available including seasonal patterns of movement/availability. Scientific research is used to support the stock identification. **A risk based assessment for the effect of fishing activity on the subcomponent geographic range shows that at worst, it is a "minor risk".**			
100	The complete geographic range of the stock, including seasonal patterns of movement/availability, is estimated and documented each year. Extensive scientific research is used to justify stock identification. **A risk based assessment for the effect of fishing activity on the subcomponent geographic range shows that at worst, it is a "negligible risk".**			

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.1.4		Information is collected on the abundance and composition of the stock. **Risk based analysis shows effect of fishing activity on population size is within acceptable limits.**		16.7	
60	Either fishery dependent or fishery independent indices are available on the abundance of the stock biomass. Qualitative information exists on the appropriateness of the indices as proportional indicators of stock size. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "moderate risk".**				
80	Fishery dependent and/or fishery independent indices are available on the abundance of the stock. Uncertainties have been analysed and those uncertainties have been reduced so as to allow trends to be determined from indices. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "minor risk".**				
100	Fishery dependent and fishery independent indices are available on the abundance, density and composition of the stock. Indices are consistent and there is clear evidence that they are proportional to the stock size. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.1.5		There is evidence on the factors causing variability in recruitment and they can be used to predict recruitment. (Recruitment is reliant on the vagaries of ocean currents and appears to be more important than juvenile population size for determination of the level of recruitment into the coastal habitats. Recruitment is opportunistic. For this reason behaviour/movement has been recommended rather than population size for the risk based analysis.) **Risk based analysis shows effect of fishing activity on behaviour/ movement is within acceptable limits.**		16.7	
60	There is some information on factors generating recruitment variability, including some time series data. Stock/recruitment relationship may not be validated. **A risk based assessment for the effect of fishing activity on the subcomponent behaviour/ movement shows that at worst, it is a "moderate risk".**				
80	There is ongoing research into the factors generating recruitment variability. Good time series data are available. **A risk based assessment for the effect of fishing activity on the subcomponent behaviour/ movement shows that at worst, it is a "minor risk".**				
100	Ongoing research studies on factors affecting recruitment variability have provided evidence to understand these factors. A good stock to recruitment relationship built up over a long time series exists and can be reliably used to predict recruitment for medium term stock projections. **A risk based assessment for the effect of fishing activity on the subcomponent behaviour/ movement shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.1.6		Information on environmental influences on the stock dynamics is available.		16.7	
60	Research studies provide some evidence of understanding on the effects of environmental change.				
80	There is knowledge of physical and biological factors affecting distribution, survival and year class strength. (Some information is sufficiently robust for use in the stock assessment process.)				
100	There is extensive knowledge of physical and biological factors affecting distribution, survival and year class strength. Key information is sufficiently robust for use in the stock assessment process.				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	

1.1.2	There should be sufficient qualitative information on the fishery to allow its effects on the target stock to be evaluated.			**16.7**		
Weighting Commentary	At this level, the recording/ estimation of fishery related mortality is considered of greatest significance, followed by the issue of misreporting, discarding and other fisheries (*i.e.*, factors which contribute to total fishing mortality). Knowledge of gear and selectivity were considered of higher significance for this fishery.					
1.1.2.1		All major sources of fishery related mortality are recorded or estimated; including landings, discards, incidental mortality and mortality of juveniles. **Risk based analysis shows effect of fishing activity on population size is within acceptable limits.**		16.7		
60	Sufficient qualitative information is available to allow estimates to be made of landings. Estimates of discards and incidental mortality can be inferred. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "moderate risk".**					
80	Landings are recorded. Discards and incidental mortality are negligible and are not a major problem for the fishery **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "minor risk".**					
100	Landings, discards and incidental mortality are accurately recorded and monitored. Mortality on juveniles is monitored and recorded separately. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "negligible risk".**					

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.2.2		Levels of discarding within the fishery are acceptable. **Risk based analysis shows effect of discarding catch on population size is within acceptable limits.**		16.7	
60	Discarding of the target species occurs at levels which may be significant in relation to the Stock Assessment, with some evidence of attempts to reduce this level. **A risk based assessment for the effect of discarding catch on the subcomponent population size shows that at worst, it is a "moderate risk".**				
80	Discarding of the target species occurs at low levels. This is well monitored and there is evidence of attempts to control and reduce this level. **A risk based assessment for the effect of discarding catch on the subcomponent population size shows that at worst, it is a "minor risk".**				
100	Discarding of the target species is minimal. Discarding is firmly monitored and there is strong evidence of a clear intention to further reduce this level. **A risk based assessment for the effect of discarding catch on the subcomponent population size shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.2.3		Fleet descriptions, fishing methods and gear types are known throughout the fishery. **Risk based analysis shows effect of fishing activity on age/size/sex structure is within acceptable limits.**		16.7	
60	Main fishing methods and gear types are known for the fishery. Information is available on the size and composition of the fleets. **A risk based assessment for the effect of fishing activity on the subcomponent age/size/sex structure shows that at worst, it is a "moderate risk".**				
80	Main fishing methods and gear types are known and information is available on the geographical areas of use. Recorded information is available on the size and composition of the fleets. This is updated at irregular intervals. **A risk based assessment for the effect of fishing activity on the subcomponent age/size/sex structure shows that at worst, it is a "minor risk".**				
100	All fishing methods and gear types employed in the fishery are known. In-situ observations are made of fishing practices. Information is recorded and regularly updated, on the size and composition of the fleets. **A risk based assessment for the effect of fishing activity on the subcomponent age/size/sex structure shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
1.1.2.4 60	Reliable qualitative information on selectivity is available. **A risk based assessment for the effect of fishing activity on the subcomponent age/size/sex structure shows that at worst, it is a "moderate risk".**	Gear selectivity for the fishery is known. **Risk based analysis shows effect of fishing activity on age/size/sex structure is within acceptable limits.**		16.7	
80	Reliable quantitative and qualitative information on selectivity with appropriate gear specifications has been developed and applied by the fishermen to achieve an almost one hundred percent efficiency for selectivity of adult mullet. **A risk based assessment for the effect of fishing activity on the subcomponent age/size/sex structure shows that at worst, it is a "minor risk".**				
100	The fishery has developed the fishing method and gears to a very advanced stage which is selective to mullet and minimizes the capture of other commercial and non commercial species. **A risk based assessment for the effect of fishing activity on the subcomponent age/size/sex structure shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.2.5		The target species is caught by other fisheries in the area and such captures are recorded or estimated. **Risk based analysis shows effect of fishing activity on population size is within acceptable limits.**		16.7	
60	Some information related to mullet in other fisheries in the entrance of the Río de la Plata. Such captures are occasional and limited to illegal and industrial fishermen exploiting mullet whilst they target other species. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "moderate risk".**				
80	The fisheries which take mullet as by-catch are known. The captures of the target species are recorded, along with information on mullet. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "minor risk".**				
100	The captures of the target species and other major valuable commercial species are recorded and used for stock assessment. The amount of mullet captured is small. This suggests that capture of mullet does not a significant effect on the exploitable population fished by the artisanal fishermen of Bahía de Samborombón. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.2.6		There are robust systems to monitor misreporting of landings.		16.7	
60	There is information on area and landings misreporting. Estimates are included in the stock assessments.				
80	Enforcement systems include measures to control misreporting Where it occurs; it is carefully evaluated and taken into account in the stock assessment.				
100	Robust enforcement systems are in place to control misreporting. Where it occurs, reliable estimates are made and used in the stock assessment.				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	

1.1.3	Appropriate reference levels have been developed with appropriate reference points.			16.7	
Weighting Commentary		The two indicators at this level were considered to be of equal significance.			
1.1.3.1		There are appropriate limit and precautionary reference points, based on both biomass and fishing mortality, which meet acceptable international standards. **Risk based analysis shows that the effect of fishing activity on population size is within acceptable limits.**		100	
60	Limit and precautionary reference points have been chosen and are justified based on standard international practice. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "moderate risk".**				
80	Limit and precautionary reference points are justified based on stock biology (*e.g.* a stock-recruitment relationship) and are measurable given data and assessment limitations which meet international standards. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "minor risk".**				
100	Limit and precautionary reference points are justified based on stock biology, uncertainty, variability, data limitations and statistical simulations of these factors, and meet international standards. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
1.1.4	**There is a well-defined and effective harvest strategy to manage the target stock.**		16.7	
Weighting Commentary	The three indicators at this level were considered to be of equal significance.			
1.1.4.1	There is a mechanism in place to contain harvest as required.		33.3	
60 Informal mechanisms exists which limit harvest although they may not be fully effective.				
80 Mechanisms exists to reduce harvest as and when required				
100 Mechanisms are in place to reduce harvest as and when required to maintain (or allow the target stock to return to) a productive resource.				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
1.1.4.2	Clear, tested decision rules are set out.		33.3	
60	It can be demonstrated that decision making, though not documented, is logical and appropriate. Rules have not been tested.			
80	Clear decision making rules exist, are fully documented, but have not been fully tested. Decision rules are reconciled with reference points and with data and assessment limitations.			
100	Clear, documented and tested decision rules are fully implemented and have been fully reconciled with reference points, and the data and assessment limitations, and they have been periodically evaluated.			

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.4.3		Appropriate management tools are specified to implement decisions in terms of input and/or output controls.		33.3	
60	Management tools exist to implement decisions of input and/or output controls although these are not developed for the specific fishery, or management tools are not fully developed.				
80	Management tools have been specified to implement decisions of input and/or output controls. These are generic although some attempt has been made to relate them to the specific fishery. Or tools are lacking in some details but are specifically related to the fishery. Evidence exists to show clearly that tools are effective.				
100	Management tools, appropriate to the species and fishery, have been specified to implement decisions of input and/or output controls. Tools are responsive, relevant and timely. Performance of the tools has been evaluated and evidence exists to show clearly that tools achieve their objectives.				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	

1.1.5	**There is a robust assessment of stocks.**			16.7	
Weighing Commentary	The assessment models have not been developed because they are not appropriate for the scale of this artisanal fishery. Simpler methods such as number of days successfully fished or catch per unit effort may provide workable indices of the state of the fishable resource. Seasonal weather conditions affect the catchability of mullet in the Bahía de Samborombón year by year.				
1.1.5.1	There is stock assessment methodology that is relevant to the biology of the target species and the nature of the fishery. The assessment uses all available relevant data. **Risk based analysis shows effect of fishing activity on reproductive capacity is within acceptable limits.**			25	
60	Stock assessments using robust evaluation methods are used to periodically to assess the health of the fishery. The assessments are appropriate in time and are designed to the characteristics of the targeted stock and generate confidence that the stocks are not overfished. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "moderate risk".**				
80	Stock assessments are used to routinely assess the health of the fishery. Simple models could be developed to consider major impacts of fishing on the target stock, including fishing mortality. The assessments are appropriate in frequency and design to ensure that the stocks are not overfished. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "minor risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
100	Annual assessments of the fishery are performed. All significant impacts of fishing are incorporated in a model. Natural mortality is treated as time and age specific. The model relies on existing knowledge on the biology of the species, mortality on all age classes including all elements of reproductive capacity and key aspects of the management system, using all available data and information of the fishery. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.5.2		The assessment is spatially structured. **Risk based analysis shows effect of fishing activity on reproductive capacity is within acceptable limits.**		25	
60	Each principal management unit is considered separately. There is no international accord on the overall resource. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "moderate risk".**				
80	The assessment models broadly reflect the spatial structure of the exploited components of the target stock(s) using appropriate area-specific values. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "minor risk".**				
100	The assessment models are fully spatially-structured representations of the target stock(s), including recruitment source/sink linkages, movement patterns of post-settlement animals and distributions of fishing effort. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.5.3		The assessment evaluates the consequences of harvest strategies and evaluates the status of the fishery relevant to reference levels. **Risk based analysis shows effect of fishing activity on reproductive capacity is within acceptable limits.**		25	
60	The assessment attempts to evaluate the fishery and the target stock(s) relative to the reference levels, including separate evaluations for each principal management unit. The assessment includes an initial, spatially-structured approximation of the future consequences of the current harvest strategy. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "moderate risk".**				
80	The assessment evaluates the fishery and the target stock(s) relative to the reference levels, including separate evaluations for each management unit. The future consequences of the harvest strategy in each management unit have been evaluated, using the assessment model or by other means. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "moderate risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
100	The assessment makes a reliable, probabilistic evaluation of the fishery and the target stock(s) relative to the reference levels, including separate evaluations for each management unit. The future consequences of the harvest strategy have been fully evaluated, with attention to the spatial structure of the stock(s) and the uncertainties in the models used. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.5.4		The stock assessment has been historically reliable using retrospective analysis. **Risk based analysis shows effect of fishing activity on reproductive capacity is within acceptable limits.**		25	
60	Annual estimates of SSB and F have been reviewed. Where estimates have been found to be unreliable, efforts have been made to improve the performance. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "moderate risk".**				
80	Uncertainty in the estimates of SSB and F are known to occur and are regularly reviewed and corrected. Investigation of the associated problems has led to significant improvement. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "minor risk".**				
100	Retrospective analysis shows excellent agreement historically for the assessment of both SSB and F. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
1.1.6	**The stock(s) is/are at appropriate reference level(s).**		16.7	
1.1.6.1	The stock(s) is at or above reference levels for SSB (Spawning Stock Biomass) and F (Fishing Mortality). **Risk based analysis shows effect of fishing activity on population size is within acceptable limits.**		50	
60 The stock is close to the limit reference levels. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "moderate risk".**				
80 The stock is above the precautionary reference levels **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "minor risk".**				
100 The stock is significantly and consistently above appropriate reference levels. **A risk based assessment for the effect of fishing activity on the subcomponent population size shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.1.6.2		The local areas of the resource are neither depleted nor overfished; or the depleted local areas are in a recovery process. **Risk based analysis shows effect of fishing activity on geographic range is within acceptable limits.**		50	
60	There is a reasonable level of confidence that neither local depletion nor local overfishing are occurring, beyond the expected temporary effects of concentrations of fishing effort moving within the fishing grounds; or the depleted local areas are in a recovery process. **A risk based assessment for the effect of fishing activity on the subcomponent geographic range shows that at worst, it is a "moderate risk".**				
80	There is a high degree of confidence that neither local depletion nor local overfishing is occurring, beyond the expected temporary effects of concentrations of fishing effort moving within the fishing grounds. Fishing mortality and the biomass of the target stock(s) within each management area are estimated (with a high degree of confidence) to be consistent with the requirements of long-term sustainable management of the fishery. **A risk based assessment for the effect of fishing activity on the subcomponent geographic range shows that at worst, it is a "minor risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
100	There is a very high degree of confidence that neither local depletion nor local overfishing are occurring, beyond the expected temporary effects of concentrations of fishing effort moving within the fishing grounds. The distribution of fishing mortality across the target stock(s) and local biomass densities in each part of the spatial structure of those stocks are known (with a very high degree of confidence) to be fully consistent with the intent and requirements of the management system (including plans for rebuilding from depletion, if any). **A risk based assessment for the effect of fishing activity on the subcomponent geographic range shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
1.3 *(MSC Criterion 3)*	**Fishing is conducted in a manner that does not alter the age or genetic structure or sex composition to a degree that impairs reproductive capacity.**		38.5	
1.3.1	**Fishing activity maintains the age, genetic structure or sex composition of the stock to a degree that does not impair reproductive capacity.**		100	
Weighting Commentary	The three indicators at this level were considered to be of equal significance.			
1.3.1.1	Adequate information on the impacts of fishing on fecundity and recruitment of juveniles into the overall population of the resource and the sex/age structure and dynamics of the various subpopulations involved is available. **Risk based analysis shows effect of fishing activity on reproductive capacity is within acceptable limits.**		33.3	
60	There is information available on fecundity, growth and natural mortality. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "moderate risk".**			
80	Estimates are available of the size/age/sex structure and fecundity at size, growth rates and natural mortality. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "minor risk".**			
100	There is comprehensive and reliable information on the size/age/sex structure, fecundity, fertilization processes, embryonic and juvenile mortality, recruitment into the coastal estuarine populations and subsequent growth rates. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "negligible risk".**			

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.3.1.2		The age/sex/genetic structure of the stock of the unit of trial assessment (namely Bahía de Samborombón and associated localized areas of the Province of Buenos Aires) is monitored. **Risk based analysis shows effect of fishing activity on age/size/sex structure is within acceptable limits.**		33.3	
60	Population structure is based on some sampling and verification such as hard-part rings verified for this species. **A risk based assessment for the effect of fishing activity on the subcomponent age/size/sex structure shows that at worst, it is a "moderate risk".**				
80	Population structure is based on adequate sampling and verification based on hard-part rings verified for this fishery. Ageing errors are estimated and included in the fishery assessment. **A risk based assessment for the effect of fishing activity on the subcomponent age/size/sex structure shows that at worst, it is a "minor risk".**				
100	Population structure of the fishery is well estimated with only insignificant errors. **A risk based assessment for the effect of fishing activity on the subcomponent age/size/sex structure shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
1.3.1.3		Information from the fishery resource assessments indicates changes in structure and reproductive capacity. **Risk based analysis shows effect of fishing activity on reproduction capacity is within acceptable limits.**		33.3	
60	Changes in population structure have been detected but there is no evidence of negative effects on recruitment of juveniles into population. **A risk based assessment for the effect of fishing activity on the subcomponent reproduction capacity shows that at worst, it is a "moderate risk".**				
80	There are no fishery-related changes in population structure that would affect recruitment. There is a reasonable spread of age classes up to the age of first maturity when the adults migrate to reproduce. **A risk based assessment for the effect of fishing activity on the subcomponent reproduction capacity shows that at worst, it is a "minor risk".**				
100	Data on recruitment of juveniles into the localized population indicates that the spawning stock is in a robust state. There is a widespread and stable abundance of age groups in the local population up to the age of first maturity. **A risk based assessment for the effect of fishing activity on the subcomponent reproduction capacity shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
Principle 2	**Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.**		**33.3**	
2.1 *(MSC Criterion 1)*	**The fishery shall be conducted at catch levels that continually maintain the high productivity of the target population(s) and associated ecological community relative to its potential productivity.**		60.0	
2.1.1	**There is adequate determination of ecosystem factors relevant to the geographical scale and life history strategy of the target species.**		22.7	
Weighting Commentary	Within Principle 2, MSC Criterion 1 (2.1) is considered to be of greatest significance, reflecting the importance of removal of biomass of the target species in maintaining ecosystem relations. Criteria 2 and 3 are considered to be of approximately equal significance. Within Criterion 2.1, the groups of indicators are considered to be of equal significance except 2.1.3 (relating to effects of gear use and loss) which is considered to be of lesser importance for this fishery. All indicators within each of the subcriteria are considered of equal importance.			

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
2.1.1.1		The nature, sensitivity and distribution of habitats is relevant to the fishing operations known. **Risk based analysis shows effect of fishing activity on habitat types is within acceptable limits.**		25	
60	Information on habitat exists but may not be comprehensive or up to date. The general distribution of fishing operations is mapped. **A risk based assessment for the effect of fishing activity on the subcomponent habitat types shows that at worst, it is a "moderate risk".**				
80	Nature, sensitivity and distribution of all main habitats are known in moderate detail. Information is recent. The scenario distribution of fishing operations is monitored. **A risk based assessment for the effect of fishing activity on the subcomponent habitat types shows that at worst, it is a "minor risk".**				
100	The nature, sensitivity and the distribution of all habitats relevant to the fishing operations are known in detail. Information is recent. The specific distribution of fishing operations and their effort is monitored. **A risk based assessment for the effect of fishing activity on the subcomponent habitat types shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
2.1.1.2		Information is available on non-target species directly affected by the fishery, including discarding of target and non-target species. **Risk based analysis shows effect of fishing activity on population size of by-catch species is within acceptable limits.**		25	
60	The main non-target species affected have been identified. Qualitative information is available on significant by-catch species. **A risk based assessment for the effect of fishing activity on the subcomponent population size of by-catch species shows that at worst, it is a "moderate risk".**				
80	Information is available on non-target species directly affected by the fishery including their distribution and/or ecology. Quantitative information is available on significant by-catch species. **A risk based assessment for the effect of fishing activity on the subcomponent population size of by-catch species shows that at worst, it is a "minor risk".**				
100	Information is available on all non-target species directly affected by the fishery including the distribution and ecology, and discarding. Accurate records are kept on the nature and extent of all by-catch species including species size and sex composition. **A risk based assessment for the effect of fishing activity on the subcomponent population size of by-catch species shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
2.1.1.3		Information is available on the trophic position, status and relationships of the target species within the food web. **Risk based analysis shows effect of fishing activity on trophic/size structure is within acceptable limits.**		25	
60	Key prey, predators and competitors are known. **A risk based assessment for the effect of fishing activity on the subcomponent trophic/size structure shows that at worst, it is a "moderate risk".**				
80	Information is available on the position, relationships and importance of target species in the environment at key life stages. **A risk based assessment for the effect of fishing activity on the subcomponent trophic/size structure shows that at worst, it is a "minor risk".**				
100	Quantitative information is available on the position and importance of the target species and their relationships within the food web at key life stages. **A risk based assessment for the effect of fishing activity on the subcomponent trophic/size structure shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
2.1.1.4	There is information available on the functioning of the ecosystem relevant to the fishery and on the potential for the ecosystem to recover from fishery related impacts. **Risk based analysis shows effect of fishing activity on habitat structure and function is within acceptable limits.**		25	
60	Some elements of the functioning of the ecosystem, relevant to the fishery, have been identified. **A risk based assessment for the effect of fishing activity on the subcomponent habitat structure and function shows that at worst, it is a "moderate risk".**			
80	The main elements of the functioning of the ecosystem, relevant to the fishery, have been documented and are partially understood. **A risk based assessment for the effect of fishing activity on the subcomponent habitat structure and function shows that at worst, it is a "minor risk".**			
100	Detailed information is available on the ecosystem, including species diversity, trophic and other functional relationships, the dominant factors structuring the system, ecosystem dynamics and the extent and nature of spatial and temporal variations. **A risk based assessment for the effect of fishing activity on the subcomponent habitat structure and function shows that at worst, it is a "negligible risk".**			

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	

2.1.2	**General risk factors are adequately determined.**				22.7	
Weighting Commentary		Information on discarding (including target species) is considered more significant than that on by-catch for a relatively selective pelagic species.				
2.1.2.1		Information is available on the extent of discard and slippage (the proportion of the catch not landed). **Risk based analysis shows effect of fishing activity on population size of by-catch species is within acceptable limits.**			100	
60	Information is available of the extent of discarding (of other species) and slippage, including a species list. **A risk based assessment for the effect of fishing activity on the subcomponent population size of by-catch species shows that at worst, it is a "moderate risk".**					
80	Information is available to allow estimates of discard and slippage to be calculated and interpreted. **A risk based assessment for the effect of fishing activity on the subcomponent population size of by-catch species shows that at worst, it is a "minor risk".**					
100	Accurate and verifiable information (quantity and proportions in terms of species, length/weight and sex) is available on the extent of all discards and slippage, and consequences of these. Or the entire catch is landed. **A risk based assessment for the effect of fishing activity on the subcomponent population size of by-catch species shows that at worst, it is a "negligible risk".**					

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	

2.1.3	**There is adequate knowledge of the effects of gear-use on the receiving ecosystem and extent and type of gear**			9.3	
Weighting Commentary		Within this section, impacts of gear are considered more significant than lost gear/ghost fishing.			
2.1.3.1		There is adequate knowledge of the physical impacts on the habitat due to use of gear. **Risk based analysis shows effect of fishing activity on habitat structure and function is within acceptable limits.**		50	
60	Main impacts of gear use on the habitat are identified including extent, timing and location of use. Effects of habitat perturbations estimated and appear stable. **A risk based assessment for the effect of fishing activity on the subcomponent habitat structure and function shows that at worst, it is a "moderate risk".**				
80	Impacts of gear use on the habitat are identified including extent, timing and location of use. Habitat perturbations appear sustainable. **A risk based assessment for the effect of fishing activity on the subcomponent habitat structure and function shows that at worst, it is a "minor risk".**				
100	The physical impacts on the habitat due to use of gear have been studied and quantified, including details of any irreversible changes. **A risk based assessment for the effect of fishing activity on the subcomponent habitat structure and function shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
2.1.3.2		Gear is not lost during fishing operations and 'ghost fishing' does not occur. **Risk based analysis shows effect of gear loss on population size of associated species is within acceptable limits.**		50	
60	Some recording of gear losses takes place and an assessment can be made of possible 'ghost fishing'. **A risk based assessment for the effect of gear loss on the subcomponent population size of associated species shows that at worst, it is a "moderate risk".**				
80	There is knowledge of the type, quantity and location of gear lost during fishing operations. Estimates made show that losses do not cause unacceptable effects on the ecosystem through for example 'ghost fishing'. **A risk based assessment for the effect of gear loss on the subcomponent population size of associated species shows that at worst, it is a "minor risk".**				
100	There is not gear lost because fishing occurs in very shallow coastal waters between low and high tide levels. **A risk based assessment for the effect of gear loss on the subcomponent population size of associated species shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	

2.1.4	**Strategies have been developed within the fisheries system to address and restrain any significant impacts of the fishery on the ecosystem.**			22.7	
Weighting Commentary		The two indicators at this level were considered to be of equal significance.			
2.1.4.1		Levels of impact of fishing on the ecosystem have been assessed.		50	
60	There is information to determine fishing impacts on target and non-target species and habitats.				
80	There is good information to determine fishing impacts on target and non-target species and habitats. The species affected by fishing have been identified and studies completed on the habitats.				
100	Levels of acceptable impact for key populations (such as of indicator' species) and habitats have been estimated and are subject to review.				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
2.1.4.2		Management objectives are aimed to protect biodiversity and the various communities involved.		50	
60	Management objectives exist to protect biodiversity and the various communities involved, and there is a number of reserve areas.				
80	Management objectives encourage the detection and reduction of impacts, although fishing procedures to achieve this have not been fully tested.				
100	Management objectives ensure the detection and reduction of impacts, and fishing procedures to achieve this have been well evaluated and supported by publication.				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	

2.1.5	**Assessments of impacts associated with the fishery including the significance and risk of each impact, show no unacceptable impacts on the ecosystem structure and/or function, on habitats or on the populations of associated species.**				22.7	
Weighting Commentary		The key factor here is considered to be removal of target species biomass, with greatest weighting given to indicators dealing with removal of the target species and impacts on diversity and productivity. Impacts of target stock removal and overall impacts on community structure, productivity and diversity are highly weighted, followed by by-catch and finally impacts upon habitat (reflecting the pelagic nature of the fishery).				
2.1.5.1		Removal of non-target species by this fishery does not have unacceptable impacts on ecosystem structure and function. **Risk based analysis shows effect of fishing activity on functional group composition is within acceptable limits.**			100	
60	The removal of non-target species could lead to impacts upon ecological systems (applying the precautionary approach where necessary). (A program is in development to reduce these to acceptable, defined limits). **A risk based assessment for the effect of fishing activity on the subcomponent functional group composition shows that at worst, it is a "moderate risk".**					
80	Sufficient information is available on consequences of current levels of removal of non-target species. These suggest no unacceptable impacts of the fishery on ecological systems within major fishing areas. **A risk based assessment for the effect of fishing activity on the subcomponent functional group composition shows that at worst, it is a "minor risk".**					

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
100	The ecological consequences of current levels of removal of non-target species has been quantified and documented to be within acceptable, pre-determined, limits. **A risk based assessment for the effect of fishing activity on the subcomponent functional group composition shows that at worst, it is a "negligible risk".**			

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
2.2 *(MSC Criterion 2)*	**The fishery is conducted in a manner that does not threaten biological diversity (at the genetic, species or population levels and avoids or minimises mortality of, or injuries to endangered, threatened or protected species.**		18.8	
2.2.1	**Fishing is conducted in a manner, which does not have unacceptable impacts on recognised threatened, protected, or endangered (TEP) species and the conservation of coastal ecosystem (habitat and communities).**		30	
Weighting Commentary	The last four subcriteria within MSC Criterion 2.2 are considered to be of equal significance. Greater weighting was given to the identification of potential impacts of the fishery on the area (first subcriterion), however. The three indicators within the 2.2.1 level were also considered to be of equal significance.			
2.2.1.1	There is information on the presence and populations of protected, endangered or threatened species. **Risk based analysis shows effect of fishing activity on the population size of TEP species is within acceptable limits.**		33.3	
60 Management encourages organizations that have a program in place to identify protected, threatened and endangered species directly related to the fishery. There is periodic monitoring of the main population trends and status of protected, endangered and threatened species. **A risk based assessment for the effect of fishing activity on the subcomponent population size of TEP species shows that at worst, it is a "moderate risk".** 80 Key protected, threatened and endangered species directly related to the fishery have been identified and are monitored on a regular basis. The fishery has not adverse effects on the populations and health of key protected, threatened and endangered species. **A risk based assessment for the effect of fishing activity on the subcomponent population size of TEP species shows that at worst, it is a "minor risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
100	Management encourages development of knowledge of all populations of protected species directly or indirectly related to the fishery including their dynamics. Regular monitoring and research on protected, endangered and threatened species is undertaken by NGOs and Universities to assess threats and promote their conservation. (The type and distribution of critical habitats, communities, benthic and coastal species have been identified.) **A risk based assessment for the effect of fishing activity on the subcomponent population size of TEP species shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
2.2.1.2		Interactions of the fishery with TEP species are adequately determined. **Risk basis analysis shows effect of fishing activity on population size of TEP species is within acceptable limits.**		33.3	
60	The main interactions directly related to the fishery are known. **A risk based assessment for the effect of fishing activity on the subcomponent population size of TEP species shows that at worst, it is a "moderate risk".**				
80	Quantitative estimates are made of the effects of interactions directly related to the fishery. There is a requirement to record and report all incidental mortalities. **A risk based assessment for the effect of fishing activity on the subcomponent population size of TEP species shows that at worst, it is a "minor risk".**				
100	Reliable quantitative estimates are made of the interactions of all populations directly related to the fishery, and qualitative information is available on indirect impacts. Incidental mortalities are recorded and reported. **A risk based assessment for the effect of fishing activity on the subcomponent population size of TEP species shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
2.2.1.3	Interactions between fisheries and TEP species do not pose unacceptable risks. **Risk basis analysis shows effect of fishing activity on interactions with fishery is within acceptable limits.**		33.3	
60 Known effects are within acceptable limits of national and international requirements and are believed to create no biological threats to the species concerned. **A risk based assessment for the effect of fishing activity on the subcomponent interactions with fishery shows that at worst, it is a "moderate risk".**				
80 Critical interactions are well understood and do not threaten TEP species. Incidental take levels are acceptable. **A risk based assessment for the effect of fishing activity on the subcomponent interactions with fishery shows that at worst, it is a "minor risk".**				
100 The direct and indirect effects of fishing on TEP species rarely occur. **A risk based assessment for the effect of fishing activity on the subcomponent interactions with fishery shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
2.2.2	**Fishery management strategies protect the resource, associated ecosystems and dependent families by use of fishing methods and adoption of practices which prevent significant impact of TEP species.**		17.5	
2.2.2.1	Management objectives and practices are set to avoid adverse impacts and are upheld by local and national laws.		100	
60	There are management systems to identify, avoid and reduce adverse impacts on the ecosystem and the associated community.			
80	Management detects and reduces adverse ecological and socio-economic impacts. These are designed to adequately protect the sustainability of the fishery, ecosystem and the lifestyle of dependent people.			
100	Management practices positively detect and reduce adverse impacts and protect the integrity of ecosystems, communities and habitats.			

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
2.2.3	**Fishing and related on-shore activities are conducted in a manner which does not have unacceptable impacts on, the conservation of coastal benthic and riverine ecosystems, habitat and community relations, ensuring the integrity of them.**			17.5	
2.2.3.1		Interactions of the mullet fishery are known for the above systems and do not threaten the integrity of the habitats, communities or ecosystems. **Risk basis analysis shows effect of fishing activity on communities (species composition) is within acceptable limits.**		100	
60	The main interactions (directly or indirectly) related to the fishery are known by observation. **A risk based assessment for the effect of fishing activity on the subcomponent communities (species composition) shows that at worst, it is a "moderate risk".**				
80	There is documentation of the main interactions within most habitats, communities and the ecosystems. **A risk based assessment for the effect of fishing activity on the subcomponent communities (species composition) shows that at worst, it is a "minor risk".**				
100	There are reliable quantitative estimates of the main interactions with the major habitats, communities and ecosystems. **A risk based assessment for the effect of fishing activity on the subcomponent communities (species composition) shows that at worst, it is a "negligible risk".**				

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
2.2.4	**The strategy of the fishing management system is to protect habitats, communities and ecosystems, by legislation and use of practices which address and correct problems identified.**		17.5	
2.2.4.1	Legislation ensures the roles of Environmental and Fishery Management to protect the environment, including identification of adverse impacts and avoidance/ reduction of these.		100	
60	There are some management systems in relation to impact identification and avoidance reduction.			
80	Management practices are used to detect and reduce impacts. These are designed to adequately protect the sustainability of habitats, communities and ecosystems.			
100	Management practices positively reduce adverse impacts and protect the integrity of habitats, communities and			

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
2.2.5	**There are management measures in place that allow the continued maintenance of habitats, communities and ecosystems (as close to undisturbed states as possible)**			17.5	
2.2.5.1		There is sufficient information to allow determination of necessary changes in the fishery management to allow recovery of damaged habitats, communities and ecosystems. **Risk basis analysis shows effect of fishing activity on community (species composition) is within acceptable limits.** **Risk basis analysis shows effect of fishing on habitat structure and function is within acceptable limits.**		50	
60	There is some information on functional relationships to detect when damage occurs and allow recovery of the habitats communities or ecosystems concerned. **A risk based assessment for the effect of fishing activity on the communities (species composition) shows that at worst, it is a "moderate risk".** **A risk based assessment for the effect of fishing activity on the habitat structure and function shows that at worst, it is a "moderate risk".**				
80	There is sufficient information, which combined with a precautionary approach allows changes in activities related to fisheries and recovery of the habitats communities. **A risk based assessment for the effect of fishing activity on the communities (species composition) shows that at worst, it is a "minor risk".** **A risk based assessment for the effect of fishing activity on the habitat structure and function shows that at worst, it is a "minor risk".**				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
100	There is a clear understanding of the functional relationships between the habitats communities and/or ecosystems and the fishery. Corrective measures based on this understanding have been evaluated satisfactorily. **A risk based assessment for the effect of fishing activity on the communities (species composition) shows that at worst, it is a "negligible risk".** **A risk based assessment for the effect of fishing activity on the habitat structure and function shows that at worst, it is a "negligible risk".**				

Comment: the Assessment Team has considered appropriate to include two subcomponents in this Risk Analysis, considering the nature of the Performance Indicator.

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
2.2.5.2 60 80 100	 Legislation exists for the modification of fishing related activities when unacceptable impacts occur. Effective management measures are used to modify fishery related activities when unacceptable impacts occur. Monitoring programmes are used to modify fishing related activity more effective: fishery related activities have been developed to limit such adverse impacts.	Management measures are in place to modify fishery activities when unacceptable impacts on habitats, communities and ecosystems occur.		50	

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	

2.3 *(MSC Criterion 3)*	**Where exploited populations (of non-target species) are depleted, the fishery will be executed such that recovery and rebuilding is allowed to occur to a specified level within specified time frames, consistent with the precautionary approach and considering the ability of the population to produce long-term potential yields.**				21.2	
2.3.1	**There are management measures in place that allow for the rebuilding of affected populations.**				100	
Weighting Commentary		The three indicators under MSC Criterion 2.3 were considered to be of equal significance.				
2.3.1.1.		There is sufficient information to allow determination of necessary changes in fishery management to permit recovery of depleted populations. **Risk based analysis shows effect of fishing on reproductive capacity is within acceptable limits.**			33.3	
60	There is some information on functional relationships to detect when depletion occurs, and allows recovery of the resource. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "moderate risk".**					
80	There is sufficient information, which combined with a precautionary approach, minimizes by-catch capture and damage to TEP species. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "minor risk".**					

SCORING INDICATORS	COMMENTS	SCORE	WEIGHT	
100	There is a clear understanding of the functional relationships between the affected populations and the fisheries. Corrective measures based on this understanding have been evaluated satisfactorily. **A risk based assessment for the effect of fishing activity on the subcomponent reproductive capacity shows that at worst, it is a "negligible risk".**			

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
2.3.1.2		Management measures are in place to modify fishery practices that produce unacceptable impacts on non-target species and allow recovery of affected populations.		33.3	
60	A mechanism exists for the modification of fishing practices when unacceptable impacts occur.				
80	Effective management measures are used to modify fishery practices when unacceptable impacts occur and allow recovery from them.				
100	Monitoring programs modify fishery practices. More effective operational practices have been developed to limit such adverse impacts and ensure recovery from them.				

SCORING INDICATORS		COMMENTS	SCORE	WEIGHT	
2.3.1.3		Management measures allow recovery of affected populations. **Risk basis analysis shows effect of fishing activity on population size of associated species is within acceptable limits.**		33.3	
60	Rebuilding measures are implemented, but have not been evaluated. **A risk based assessment for the effect of fishing activity on the population size of associated species shows that at worst, it is a "moderate risk"**				
80	Rebuilding measures are being implemented, which appear to allow recovery of the affected population. **A risk based assessment for the effect of fishing activity on the population size of associated species shows that at worst, it is a "minor risk"**				
100	Rebuilding measures are allowing recovery and additional measures are being developed and/or implemented to prevent future problems. **A risk based assessment for the effect of fishing activity on the population size of associated species shows that at worst, it is a "negligible risk**				

SCORING INDICATORS	Comments	SCORE	Weight

PRINCIPLE 3		**The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable**.		
3.1 Structure and Strategies		**A management system containing an institutional and operational framework exists with clear lines of responsibility.**		25
3.1.1 (3A. 3)		**The fishery system is appropriate to the cultural context, scale and intensity of the fishery.**		14.3
Weighting commentary		The four criteria were considered of equal importance. All subcriteria within first criterion were considered of equal importance.		
3.1.1.1		The fishery system is appropriate to the cultural context, scale and intensity of an artisanal fishery.		100
60	The artisanal fishermen have operative informal management systems which supplement provincial legislation and management. Fishing is on a semi-seasonal basis-concentrating on other species at times during the year. The system of fishing virtually eliminates by-catch.			
80	The system of capture is highly selective and minimizes environmental damage. The Legal authority issues annual licenses and inspects the vessels gear.			
100	In addition to the fishermen's systems the fishery has government regulations and resolutions which are fully respected and applied.			

SCORING INDICATORS		Comments	SCORE	Weight
3.1.2 (3A. 2)	**The fishery system has clear long-term goals, specific objectives, incorporating operational criteria, consistent with MSC Principles and Criteria.**			14.3
3.1.2.1		There are informal and formal operational goals and objectives.		100
60	The management system interacts on a semi-formal basis with the fishermen and fulfils basic legal requirements. There is a general consensus by the management authorities on the goals and objectives of the fisheries management. The method of fishing appears to maintain a sustainable resource.			
80	Fishery activity is limited to a narrow window of time according to tidal and weather conditions to allow fishing which affects availability of the species in shallow waters.			
100	The Provincial Management Authority has long term goals and objectives for the fishery including- measurement of landings of by-catch and monitoring of the resource.			

SCORING INDICATORS	Comments	SCORE	Weight

3.1.3 (3A. 1)	The fishery has a clear legal basis.		14.3

3.1.3.1		The fishery has a basis for legal control and the fishery system is consistent with Provincial legislation, regulations and level of management control.		50
60	The fishery system is generally consistent with the requirements of the relevant Provincial legislation and regulations.			
80	Fishing activity within a limit of 3 miles from the coastline is limited to licensed artisanal fishermen. There is some monitoring by official authorities to restrict this area to artisanal fishermen.			
100	The Provincial authority in cooperation with the Argentine Coastguard effectively monitors fishing activity and documents it.			

SCORING INDICATORS		Comments	SCORE	Weight
3.1.3.2		The artisanal fishery is not conducted under exemption to international laws and agreements, but is consistent with them.		50
60	Minor exemptions and deviations for international requirements exist.			
80	Some minor exemptions and deviations occur occasionally.			
100	There are neither controversial exemptions nor deviations from international conventions and agreements.			

SCORING INDICATORS	Comments	SCORE	Weight

3.1.4 (3A. 4)	The fishery system observes the legal and customary rights and long-term interests of people dependent on fishing.		14.3

3.1.4.1		The fishery system respects the rights and long term interests of people dependent on the fishery.		100
60	The legal system does not violate the customary rights of any directly affected stakeholder (or group) with an interest in the fishery and considers the needs of all fishermen.			
80	The fishery management system takes into account the long-term interests, including socio-economic and sustainable measures in relation to the needs of artisanal fishermen.			
100	The legal and customary rights of long-term traditional fishing families and /or indigenous peoples are fully respected and tribal management of the fishery respected and integrated with Provincial Law, when it exists.			

SCORING INDICATORS	Comments	SCORE	Weight

3.1.5 (3A. 2; 3A. 5)	The fishery system contains a transparent consultative process and incorporates a dispute resolution mechanism.	0.15	14.3

3.1.5.1		The fishery system involves all interested and affected parties through open and transparent consultative processes.		50
60	There is open consultation of fishermen by Provincial Authorities and exchange of opinions within fishermen association' groups which occurs on an informal basis.			
80	Regular open transparent consultation and exchange of opinion occurs between fishermen association' groups and authorities.			
100	The fishery system incorporates a formal and effective consultation process, open to all affected parties, including use of workshops and public meetings.			

SCORING INDICATORS		Comments	SCORE	Weight
3.1.5.2		The fishery system provides, in an open and transparent manner, for timely and fair resolution of disputes arising within the system.		50
60	Disputes are resolved informally and can be addressed through the processes of the management authority, if utilized by the fishermen. The application of those processes may vary.			
80	The fishery system incorporates provisions for open and transparent resolution of significant disputes. Disputes are resolved in a timely and fair manner.			
100	The fishery system incorporates a formal and effective dispute-resolution mechanism, independent of both the management authority and the national governance structure. That mechanism is open, transparent and accessible to all stakeholder groups.			

SCORING INDICATORS	Comments	SCORE	Weight

3.1.6	The fishery system recognizes the responsibilities and authorities of relevant official institutions and coordinates their implementation. Conflicts with or between the authorities of institutions are addressed.		14.3

3.1.6.1		The fishery system recognizes the responsibilities and authorities of relevant official institutions and coordinates their implementation. Conflicts with or between the authorities of institutions are addressed.		100
60	Areas of responsibility and authority of each relevant institution are known. There is no strong coordination or interaction.			
80	The areas of responsibility and authority of each relevant institution with respect to the fishery are known and the interactions defined. While disagreement occurs sometimes such interaction does not threaten the management system.			
100	The areas of responsibility and authority of each relevant institution are explicitly known and fully respected. Coordination and cooperation are high.			

SCORING INDICATORS		Comments	SCORE	Weight
3.1.7	**The system provides financial support for management, technology transfer and research.**			14.3
3.1.7.1		Funding is provided for management, technology transfer and research, and is secure.		100
60	Research is sometimes contracted by the management authorities with local universities, with support from the federal research institute (INIDEP). A limited management budget is provided by the Provincial Government.			
80	Research is contracted on a regular basis and the Federal Research Authority collaborates with the Provincial Management to develop specific research and technology projects. An adequate management budget is provided by the Provincial Government. Outside provision of research and technology transfer funding is in addition to Government support.			
100	Research and Technology Transfer are funded at a level necessary for staged development of a sustainable Fishery Management Plan supported by an effective Provincial Management System. A high degree of confidence for these actions is predictable.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2 (3A. 10)	**The management system specifies measures and strategies that demonstrably control the degree of exploitation of the resource.**			25
Weighting commentary		Subcriteria 1, 2, 4 and 8 were considered of slightly high importance than the others.		
3.2.1 (3A. 10 a)	**The artisanal fishery system achieves catch levels that maintain the target population and account for the non-target species (or size, age, sex) captured and landed in association with, or as a consequence of, fishing for the target species.**			15
3.2.1.1		Catch levels are limited by either fishing effort and shallow water capture methods or Government legislation and resolutions.		33.3
60	The artisanal fishery catch levels are limited by fisheries licenses granted, fishing effort and the type of vessels used associated with shallow water fishing method.			
80	Catch levels are limited by fishing licenses granted, fishing effort, the type of vessels used associated with shallow water fishing method, and the mesh size to ensure high levels of selectivity and ensure survival of juveniles and associated other species. Strong enforcement is applied to artisanal and commercial fishermen.			
100	A fishery wide TAC and/ or allowable effort limit to ensure the sustainability of the resource is specified for each of the distinctive zones of the Cuenca del Río de la Plata.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.1.2		Catch levels are set to maintain the productivity and catchable biomass of the target population at optimum levels.		33.3
60	Catch and/or effort limits are set by the limitation on licenses, vessels and arts of fishing applied (self regulated) in order to maintain productivity and catchable biomass at adequate levels.			
80	Catch and/or effort limits are being monitored by the Provincial Authorities, for possible development of applied regulations to ensure continuing productivity and catchable biomass.			
100	Catch and/or effort limits have being established by Provincial Authorities, such that a high degree of confidence is possible in regard to the sustainability of productivity and catchable biomass.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.1.3		Catch levels prevent insignificant capture of non-target species.		33.3
60	Methods and practises applied by the artisanal fishermen ensure insignificant capture of non-target species.			
80	Methods and practices in the fishery are verified by regular monitoring by the Provincial Fisheries Authorities.			
100	The capture of non-target species is fully documented by the Fishery Management Authority.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.2 (3A. 10 b) (3B. 13; 3B. 14)	**The appropriate gear, practices and fishing methods have minimal adverse impacts on habitat (especially in critical or sensitive zones such as spawning and nursery areas). Destructive fishing practices such as fishing with poisons or explosives are not used.**			15
3.2.2.1		Fishing gears, methods and practices suitable for harvest of the target species have evolved to reduce adverse impacts on habitat (especially in critical or sensitive zones), their rates of capture of non-target animals and incidental impacts on target animals, and ecosystem. The gears with least impacts are used in the fishery.		50
60	The gears and fishing methods used have been effectively evolved and developed by the artisanal fishermen for selective capture of the targeted species. The fishery does not involve the use of poisons or explosives. This is approved by the management authority.			
80	Adverse impacts on the habitat (including juvenile nursery areas which are not fished) are minimal and avoid non-target species and juveniles in the target species areas.			
100	There is effective legislation to prohibit the use of explosives or destructive practices to capture the target species.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.2.2		The fishery does not use poisons, explosives or similarly destructive fishing practices.		50
60	The fishery does not involve the use of poisons or explosives.			
80	The fishery does not involve the use of poisons, explosives or destructive fishing practices.			
100	The fishery does not involve the use of poisons, explosives or destructive fishing practices. There is effective legislation to safeguard against such activities.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.3 (3A. 10 c)	**The fishery system provides for the recovery and rebuilding of depleted fish populations to specified levels within specified time frames.**			10
3.2.3.1		The fishery system understands the target stock rebuilding processes (Reproductive activities are centred of the coast of Brazil. The end result is an opportunistic migratory provision of recruits into Bahía de Samborombón Mullet Fishery to maintain the sustainability of the commercial resource).		50
60	No formal requirement is necessary for the natural rebuilding measures under the present management regime and the fishing pressures applied.			
80	Monitoring of the management authority to verify that the self-regulated mechanism for rebuilding the capturable resource is being implemented.			
100	The management authority system is used to drive decisions to regulate the amount of fishing pressure permitted in the Bahía de Samborombón Mullet Fishery.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.3.2	*Statement: three non-target species are captured, namely: carp (an introduced species), bagre and pescadilla, all in exceedingly low numbers.*	The mullet fishery system allows rebuilding of non-target fish populations, if they are frequently caught.		50
60	Specified rebuilding measures are not specified, as the artisanal fishery has no significant impact on the non-target species.			
80	In the case of depletion of non-target stock populations due to fishing by the mullet fishery, procedures to correct problems are encompassed within the spirit of the Provincial Fishery Law.			
100	The need for a specified rebuilding program to overcome excessive depletion of non-target fish stocks has been fully considered by the management authority.			

SCORING INDICATORS	Comments	SCORE	Weight

3.2.4 (3A. 10 d)	The fishery system has mechanisms in place to limit or close fisheries when designated catch limits are reached.		15

3.2.4.1		There are mechanisms to limit or close fisheries when designated catch limits are reached.		100
60	The fishing pressures and methods applied by the artisanal fishermen exclude the need to close the fishery, as overfishing has not occurred.			
80	The fishery management system is monitoring the catchable resource which could be used to trigger closures and/ or other restrictions when catches approach set limits.			
100	The fishery system has pre-set mechanisms which directly lead to fishery closures or other restrictions when set catch limits are reached. There is a demonstrated, consistent ability to prevent catch over-runs.			

SCORING INDICATORS	Comments	SCORE	Weight

3.2.5 (3A. 10 e)	The fishery system has considered no-take zones as a means to control exploitation.		10

3.2.5.1		The fishery system has considered no-take zones as a mean to control exploitation.		100
60	The use of no-take zones in the fishery has been considered by management decision-makers.			
80	No-take zones within the rivers and the canals passing through the Provincial Coastal Reserve have been established.			
100	There has been a formal analysis of the value of no-take zones in the assessed fishery and management has acted upon the findings and recommendations.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.6	**Provincial Federal Law specifies measures and strategies to achieve the goals and objectives of the fishery.**			**10**
3.2.6.1		Provincial Fishery Legislation provides measures and strategies to achieve the goals and objectives of the fishery.		100
60	Artisanal fishermen use fishing practises and methods which limit fishing activity and maintain the sustainability of the mullet resource.			
80	Fishery measures and strategies applied in the fishery are used to decide the issuance of annual fishery licenses, which are granted to achieve the goals and objectives of the fishery.			
100	When required the provincial management authorities fully apply the law to achieve the goals and objectives set for the fishery.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.7 (3B. 12; 3B. 15)	**Fishing operations minimize mortality of non-target catch, reduce discards of what cannot be released alive, and minimize operational waste such as lost fishing gear, oil spills, on board spoilage of catch, etc.**			10
3.2.7.1		The operations of the fishery are conducted so as to minimize (to a practical degree) the capture of non-target animals, particularly those that cannot be released alive and the discharge and lost of operational waste.		25
60	The operations of the fishery include reasonable measures to reduce the capture of non-target animals, particularly those which cannot be released alive.			
80	The operations of the fishery include a range of reasonable measures, including both formal management requirements and informal industry practices, to minimize the capture of non-target animals, particularly those which cannot be released alive. Most of the capture is processed onshore.			
100	The operations of the fishery are demonstrably conducted so as to minimize (to the degree practical) the capture of non-target animals, particularly those which cannot be released alive, and the mortality of those which are discarded. The fishermen take reasonable measures to reduce discharge of wastes and lost of fishing gear.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.7.2		Fishermen and others in the industry take all reasonable steps to minimize the loss of fishing gear.		25
60	Fishermen and others in the industry have adopted procedures to retain fishing gear.			
80	Fishermen and others in the industry take steps to minimize the loss of fishing gear.			
100	Fishermen and others in the industry demonstrably take all reasonable steps to minimize the loss of fishing gear, and to recover lost fishing gear.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.7.3		Fishermen and others in the industry take all reasonable measures, whether or not required by law or regulation, to minimize discharge into the ocean of anything except water, organic shipboard wastes and materials caught during fishing operations.		25
60	Fishermen and others in the industry do not wantonly discharge substances into the ocean but there are no specific programs or controls. While there are no significant discharges except for water, organic shipboard wastes and materials caught during fishing operations.			
80	Fishermen and others in the industry take reasonable measures to minimize discharges into the ocean, in accordance with argentine regulations.			
100	Fishermen and others in the industry demonstrably take all reasonable measures to minimize discharge into the ocean of anything except water, organic shipboard wastes and materials caught during fishing operations, in accordance with argentine regulations. Such discharges are minimal. Performance monitoring occurs. Fishermen and others in the industry strongly support minimization of waste discharges.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.7.4		Fishing and on-board processing operations are conducted so as to minimize spoilage or other wastage of the marketable portion of the target catch.		25
60	Spoilage or other wastage of the marketable portion of the target catch is not excessive.			
80	Fishing and on-board processing operations are conducted so as to minimize spoilage or other wastage of the marketable portion of the target catch.			
100	Fishing and on-board processing operations are conducted such that spoilage or other wastage of the marketable portion of the target catch does not occur except as a result of unforeseen emergencies or accidents at-sea.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.8 (3A. 6)	**The fishery system provides economic and social incentives that contribute to sustainable fishing and does not operate with subsidies that contribute to unsustainable fishing.**			15
3.2.8.1		The fishery has no subsidies that contribute to unsustainable fishing.		50
60	The fishery system is not financially dependent on subsidies that contribute or lead to overfishing.			
80	The fishery system is not financially dependent on subsidies that contribute or lead to overfishing. Subsidies are minor and do not impinge on fishery's ability to maintain the mullet resource on a sustainable basis.			
100	The fishery has no subsidies that contribute to unsustainable fishing or overcapacity.			

SCORING INDICATORS		Comments	SCORE	Weight
3.2.8.2		The fishery system includes economic/social incentives that contribute to sustainable fishing.		50
60	Other than the economic benefit of achieving a sustainable fishery, the system provides little additional incentives for sustainable fishing.			
80	The mullet fishery system is receiving Provincial Management Encouragement to maintain or improve sustainable and good fishing management practises.			
100	The fishery system includes specific economic and/or social incentives that demonstrably contribute to sustainable fishing.			

SCORING INDICATORS		Comments	SCORE	Weight
3.3	**The management system is implemented in an effective manner to meet MSC Principles and Criteria.**			25
3.3.1 (3B. 16)	**The fishery operation (which includes all management authorities) is conducted in compliance with the fishery system and is effective, responsible and timely.**			25
3.3.1.1		The fishery operation (which includes all management authorities and the fishery associations) is conducted in compliance with the fishery system and is effective, responsible and timely.		100
60	The effectiveness and timeliness of the fishery operation are marginally sufficient to meet MSC Principles and Criteria.			
80	The administration of the fishery system and operation of the fishery is adequate, effective, responsible and timely.			
100	The administration of the fishery system and operation of the fishery is highly adequate, effective, responsible and timely.			

SCORING INDICATORS		Comments	SCORE	Weight
3.3.2 (3A. 7)	**The artisanal fishery system has evolved an adaptive precautionary approach in relation to the targeted species.**			25
3.3.2.1		The fishery system uses an adaptive precautionary approach at an appropriate level to the scale of a small artisanal fishery.		100
60	The fishermen have evolved a system which is adaptive and includes precautionary measures.			
80	The Management Authority supports the adaptive system of fishermen and seeks to optimize it. Efforts to define and implement an explicit precautionary strategy are underway.			
100	Management decisions are made using an explicit precautionary strategy in light of scientific uncertainty. This strategy is formally adopted as policy or regulation. The use of this strategy is documented.			

SCORING INDICATORS	Comments	SCORE	Weight
3.3.3 (3A. 8)	**The management system incorporates a research plan – appropriate to the scale and intensity of the fishery – that addresses the information needs of management and provides for the dissemination of research results to all interested parties in a timely fashion.**		25
3.3.3.1	Research that provides for both short- and long-term information needs for management of the fishery and protection of the ecosystem, are accommodated by research grants by Provincial Fishery Authority CFI funded projects in cooperation with the Province to University and CONICET scientists. As well INIDEP provides scientific advice to the artisanal mullet fishermen and research by several Federal Environmental Agencies and funding by the Joint Commissions include studies on water ways and fisheries between Uruguay and Argentina		50
60	Areas requiring further research are funded on an as need basis by the Provincial Government. The amount of research is limited by the small scale of the fishery		
80	Major factors which impact on the environmental quality of the Río de La Plata, its benthos and the in-land water systems which feed into it, are being funded by Federal and Joint Commission agencies.		
100	A research program coordinated by the Provincial Fishery Authority with other interested organizations has been established and peer reviewed in an open and transparent manner available to the public. The Research Plan accommodates both long and short term needs for management of the fishery and protection of the associated environments and ecosystems.		

SCORING INDICATORS		Comments	SCORE	Weight
3.3.3.2		The fishery system provides for dissemination of research results to all interested parties in a timely and understandable fashion.		50
60	Dissemination of research results is left to the scientists involved in the research. Technology transfer is informal and involves the operators in the industry.			
80	The fishery system has organized measures for dissemination of research results to interested parties.			
100	The fishery system includes a very effective program for the timely dissemination of research results in consumer friendly presentation to all interested parties, meeting the needs of effective technology transfer.			

SCORING INDICATORS	Comments	SCORE	Weight

3.3.4 (3A. 2)	The management system considers all relevant information, including local knowledge, and bases decisions on the best available information.		25

3.3.4.1		The management system solicits and takes into account relevant information, including information on conservation of the resource, protection of the ecosystem, efficiency of harvesting of the target species, and other issues drawn to their attention by fishermen, also using relevant information in fair and equitable ways.		33.3
60	The management system considers information and advice. Relevant information is used when making decisions.			
80	The management system actively solicits and seriously considers all relevant information when making management decisions. There is some evidence that the management system gives fair and appropriate consideration to all information received. There is evidence that the system responds to the information.			
100	The management system demonstrabely solicits, encourages and takes into account all relevant information from all interested and affected stakeholders. The system is responsible and contributes to planning.			

SCORING INDICATORS		Comments	SCORE	Weight
3.3.4.2		The fishery system presents information, including scientific advice to interested parties, in a clear, useful and in a transparent way.		33.3
60	The Provincial Fishery Management Systems provide information to the public on the Internet.			
80	Relevant information is made available to interested parties on request by Provincial and Federal Authorities, Universities, Foundations and other NGOs (oral and written material).			
100	The fishery system includes an effective public programme for presentation of relevant information to interested parties in a clear, useful, and transparent way.			

SCORING INDICATORS		Comments	SCORE	Weight
3.3.4.3		Management decisions are based on the best information available.		33.3
60	It appears that management decisions are based on the best available information.			
80	There is evidence that management decisions are based on the best information in a timely way.			
100	There is a clear record that management decisions are based on the best information available. There are internal audits procedures in place to ensure this record continues.			

SCORING INDICATORS	Comments	SCORE	Weight
3.4	**The management system contains a process for monitoring and evaluating performance and acting on findings.**		25
3.4.1. (3A. 11)	**The fishery system contains appropriate procedures for effective compliance, monitoring, control, surveillance and enforcement within the context of an artisanal fishery, to ensure the sustainability of the resource, the survival of juveniles, the minimization of impact of fishing which ensure that established limits to exploitation are not exceeded and specifies corrective actions to be taken in the event that they are exceeded.**		50
3.4.1.1	The fishery system operates in an informal self regulating manner, with artisanal fishermen, operating largely as independents within common interest Associations controlled in a low key manner by the Provincial Management Authority (Fishing effort is regulated and limited by environmental and tidal conditions, the type of fishing vessels used by the artisanal fishermen and the number of vessels licensed to fish). Key elements considered are monitoring of effort, catches (target and by-catch), biological data, discards and control of vessels.		50
60	The Management Authority annually licenses fishermen, the coastguard monitor vessel and legal requirements. The catch is naturally regulated by the methods and time of fishing by the fishermen.		
80	The Management Authority has initiated a system for monitoring juveniles and measurement of sex, age and size of mullet on a temporal and spatial basis.		
100	The Artisanal fishermen record catches on landing through the auspices of their Fishermen Association or other legalized declaration. The Fishermen Associations guide members in the art of responsible fishing.		

SCORING INDICATORS		Comments	SCORE	Weight
3.4.1.2		The fishery industry complies with the fishery system in all legal and administration requirements and intentions. The fishery system has elementary surveillance, enforcement, dispute and justice systems and corrective actions can be applied if deemed necessary.		50
60	The fishery industry generally complies with the system, but as the artisanal fishery is largely self regulating, enforcement has been minimized.			
80	The fishery industry generally complies with fishery system and all legal and administrative requirements, but not necessarily with all intentions of the law.			
100	The Management Authority has written procedures for regulation of the fishery if deemed necessary, and the industry complies with all intentions of the law.			

SCORING INDICATORS		Comments	SCORE	Weight
3.4.2 (3A. 9)	**The fishery system assesses the biological status of the resource and impacts of the fishery, within the context of opportunistic recruitment and the sustainable continuance of the resource in the area including inland water systems and the marine artisanal fishery dependent on it.**		0.50	50
3.4.2.1		The impacts of fishing on the mullet population, the ecosystems involved and on threatened, endangered and protected (TEP) species are assessed. There is provision for periodic (decadal) reviews of the state of the fishery, in order to guide development and performance on it.		20
60	Assessments of the fishery are performed at appropriate intervals and information is available on the impact of the fishery on TEP species.			
80	Assessment includes the state of the fished resource, ecosystems and TEP species.			
100	The timing of assessments is consistent with the variability of production parameters and the need to maintain the quality of the ecosystems involved and to minimize damage to TEP species.			

SCORING INDICATORS		Comments	SCORE	Weight
3.4.2.2		The impacts of the fishery on the ecosystem and on endangered, threatened or protected species are assessed routinely.		20
60	An assessment of the impacts of the fishery on the ecosystem and on endangered, threatened or protected species (if any have been identified) is being developed.			
80	The impacts of the fishery on the ecosystem and on endangered, threatened or protected species have been assessed.			
100	The impacts of the fishery on the ecosystem and on endangered, threatened or protected species are assessed routinely every few years.			

SCORING INDICATORS		Comments	SCORE	Weight
3.4.2.3		The fishery system includes provisions for regular internal reviews.		20
60	The fishery system incorporates an internal review process that meets minimum performance requirements.			
80	The fishery system undertakes internal reviews of its functioning at intervals. Performance is evaluated relative to the objectives set by the management system.			
100	The fishery system incorporates explicit provisions for on-going internal reviews of its performance. Performance is evaluated relative to the objectives set by the management system.			

SCORING INDICATORS		Comments	SCORE	Weight
3.4.2.4		The fishery system is subject to periodic external reviews.		20
60	The fishery system is not subjected to independent external reviews but considers external critiques that may occur.			
80	The fishery system is subjected to independent external review at intervals, results of which are explicitly considered by managers.			
100	The fishery system incorporates explicit provisions for independent, expert external review, including considering and implementing appropriate advice.			

SCORING INDICATORS		Comments	SCORE	Weight
3.4.2.5		The fishery system responds to the results of assessments and reviews.		20
	There are indications that the fishery system responds to some results of assessments and reviews.			
	The fishery system shows evidence of improved performance built on the results of internal and external reviews.			
	The fishery system has demonstrated a consistent pattern of incorporating, in a timely manner, significant recommendations for improvement developed through internal or external performance reviews.			