



A review of the proposal to include the genus *Corallium* in Appendix II of CITES
By Marco Pani and Jaques Berney – IWMC World Conservation Trust

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■ Introduction

One of the authors (M. Pani) of the present document has been one of the reviewers of the IUCN/TRAFFIC Analyses of Proposals to Amend the CITES Appendices, for the proposal, submitted by the United States of America, to include the genus *Corallium* in the Appendix II of CITES (http://intranet.iucn.org/webfiles/doc/SSC/CoP14/AnalysesEN/cites_prop_21.pdf) at the 14th meeting of the Conference of the Parties (The Hague, Netherlands, 3-15 June 2007).

In order to supplement and update the information presented by IUCN, the present document summarizes some points that demonstrate that the proposal to include the genus *Corallium* in CITES is inappropriate and could be counterproductive for the conservation of the species concerned.

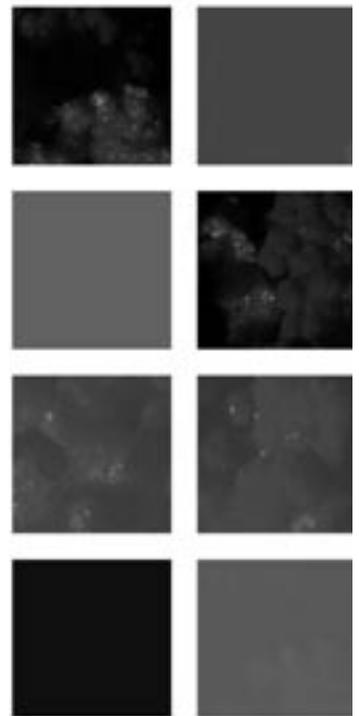
The document includes personal research and information obtained from scientists and the industry in particular from ASSOCORAL the Italian Associations of Coral and Cameos producers.

These considerations take into full account the FAO recommendations, the IUCN Analysis and the CITES Secretariat Recommendations.

We explain why we do not believe that a CITES listing is appropriate for this genus and why it could be even counterproductive for the conservation and sustainable use of these species

In particular we do not concur with the Secretariat's view that "*Whilst the species in the genus *Corallium* have not suffered marked population declines large enough to meet the Appendix II listing criteria throughout their range, given the demand for specimens of the species and the history of over harvesting in one area after another, it does not seem unreasonable to conclude that for these populations, in accordance with paragraph B. in Annex 2a to Resolution Conf. 9.24 (Rev. CoP13), regulation of trade in the species is required to ensure that the harvest of specimens from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences, or that over harvesting for international trade may affect the role of these species in the ecosystems where they occur*"

First of all we cannot find any evidence in paragraph B of Annex 2a to Resolution Conf. 9.24 (Rev. CoP13) of the phrase "*or that over harvesting for international trade may affect the role of these species in the ecosystems where they occur*"



Moreover over harvest is something that might have happened in the past although its impact on the precious coral populations is not visible and have not reduced the wild population to a level at which its survival might be threatened by continued harvesting or other influences.

Furthermore we would like to highlight some points in order to give a better understanding of the situation.

■ 1- Consultations with range States could have been conducted inappropriately

CITES Resolution Conf. 8.21 on Consultation with Range States on proposals to Amend Appendices I and II recommends that for any submission of a proposal to amend Appendix I or II of the Convention one of the following two procedures be applied:

a) where the proposing Party intends to consult the range States, it:

- i) advises the Management Authorities of the range States within which the species occurs of its intention to submit a proposal;
- ii) consults with the Management and Scientific Authorities of these States on the substance of the proposal; and
- iii) **includes the opinions of these Authorities in section 6 of the proposal submitted in accordance with Resolution Conf. 9.24 (Rev. CoP13)1 except that, where no response has been received from a range State within a reasonable period of time, the proposing Party may instead simply document its attempts to obtain these opinions;**

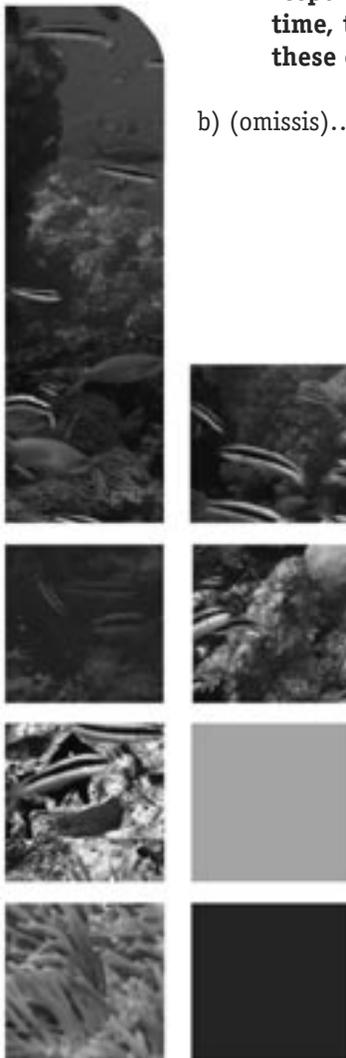
b) (omissis).....

It appears that the proponent has not consulted or had not included the information received or documentation of the attempts to obtain opinions required in subparagraph iii), at least from the following Range States of *Corallium rubrum*: Cape Verde Island, Mauritania, Morocco, Tunisia, the Libyan Arab Jamahiriya, Portugal, France, Gibraltar (UK), Monaco, Greece, Croatia, Montenegro, Albania, Malta, Turkey, Cyprus (?), Egypt (?), the Syrian Arab Republic (?).

Also for other species of the genus *Corallium*, it seems that the proponent has not consulted or included the information or the documentation of the attempts to obtain opinions required in subparagraph iii) from the following Range States (the list is non-exhaustive):

Japan (*C. elatius*, *C. konojoi*, *C. pusillum* *C. secundum* *C. sulcatum* *Corallium (Paracorallium) japonicum*), Mexico (*C. ducale*, *C. imperiale*), Philippines (*C. elatius*) Solomon Islands (*C. elatius*), China (*C. elatius*, *C. secundum*), Malaysia (*C. borneense*), Mauritius (*C. elatius*) Portugal (*C. tricolor*, *C. niobe*, *C. johnsoni*, *C. maderense*), Spain (*C. tricolor*, *C. niobe*, *C. johnsoni*), Morocco (*C. niobe*)

If the above is correct, the consultation procedure has been conducted contrary to the above-mentioned Resolution and of the spirit of the Convention that requires cooperation and mutual respect between Parties.



■ 2- Taxonomic uncertainties within the genus

The proposal list 26 species, but there may be 31 species (IUCN, 2007).

Of particular taxonomic interest is *Corallium sp. nov.*, known as Midway deep coral. There are no indications as to why the taxonomic status of this taxon has not been resolved. It occurs in U.S. waters and no attempt has apparently been made to determine its affinities. Even the basis for its inclusion in the genus *Corallium* remains unpublished. The species is in trade and represented nearly half of the harvest of Pacific corals in the 1980's. If it does not belong to the genus *Corallium* it cannot be covered by the proposal.

Paracorallium is a valid genus that includes seven species some of which are in trade. Although the proposal mentions the existence of this genus, it seems incorrect to imply that the same could be included in *Corallium*. If the proposal would be adopted, species listed in the genus should not be included in CITES, because they are not belonging to the genus *Corallium*, and the proposal may not be amended to enlarge its scope.

■ 3- The Biological criteria of Resolution Conf. 9.24 (Rev. Cop13) are not met

- Information relative to quantitative criteria

a) *Small population size*

Colonies are presented as the unit of abundance in the proposal and in publications cited. Strictly speaking, colonies are made up of a number of individuals but it seems appropriate to use colonies as the unit of abundance.

Estimates of density are available from different parts of the *Corallium* distribution (see proposal), but no estimate of total population size is available. Numbers of colonies in three beds off Hawaii in 2001 were 120,000 (Makapu'u), 7,000 (Keahole Point) and 2,500 (Cross Seamount) (Grigg, 2002 in proposal p. 5) for a total of 129,500.

Corallium rubrum is found in small patches at relatively high abundances (127 colonies/m² in Spain [Tsounis, 2005]; 200-600 colonies/m² in France (Garrabou et al., 2001); and up to 1300 colonies/m² in the Ligurian Sea, Italy (Cerrano et al., 1999) (in proposal p. 5)

Corallium rubrum se rencontre en petite zones relativement abondantes (127 colonies/m² en Espagne [Tsounis, 2005]; 200-600 colonies/m² en France [Garrabou et al., 2001]; et jusqu'à 1300 colonies/m² en mer de Ligurie, Italie [Cerrano et al., 1999] [p. 5 de la proposition]).

C. rubrum can occur at high densities at depths of > 100m in some areas – photos by ROVs and accounts of professional fishermen in Albania, Algeria and Morocco. The comparison of current densities with those of 'Several decades ago' may be misleading due to the differences in sampling strategy and comparison of the difference sites (IUCN, 2007)



The population size is not small and very high densities are found in shallow water populations of some species. Deep-water populations are little studied

The criterion is not met.

b) *Restricted distribution*

No estimate of distribution area was available. The genus is widely distributed.

The criterion is not met.

→ Information on decline

Decline

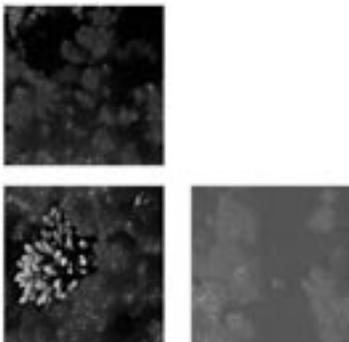
An analysis of the footnote with respect to application of the definition of 'decline' for commercially exploited aquatic species included in Annex 5 of CITES Resolution Conf. 9.24 (Rev. Cop13) indicates clearly that *Corallium rubrum* shows no evidence of decline in the overall area of distribution despite the long history of utilisation.

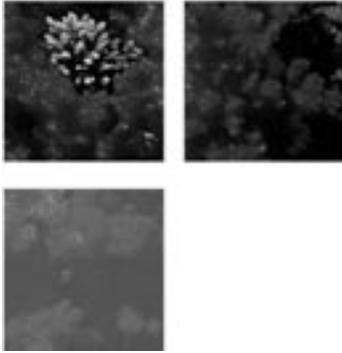
No population estimates exist for the Mediterranean or for the Pacific, so it is very difficult to establish a baseline. The extent of the decline, **based exclusively on statistics** and not on studies on the status of the population, has been of less than 40% historically and no decline is evident in the last 10 years. Harvest for all areas have been stable or slightly increasing in recent years so a decline cannot be demonstrated for a listing in Appendix II.

There is no evidence of any decline in the overall area of distribution despite the long history of exploitation to which this species has been subject. Likewise, whilst exploitation has an impact on the size and age structure of populations, it rarely results in their extirpation, though colonies are slow to recover from exploitation. The major evidence for a decline in population is a decline in overall Mediterranean harvests of 40% from 1987 to 1996. This level of decline is insufficient to meet the guidelines for decline in commercially-exploited aquatic species (to 5-20% of baseline) for Appendices I and II – even for a low productivity species. It is clear that the species does not meet the threshold for this decline criterion. In addition, shallow-water populations are not exploited (because they are of low value for jewellery), only populations between 60-110 m (high value) populations are targeted for harvesting and the populations below 100-110m are untouched.

Therefore the harvest takes place within a limited range (60-110m of depth) leaving untouched all the other populations, that can reach according to scientific literature the 300m of depth, even though recent unpublished reports have found the species at more than 600m of depth. This is a sensational scientific discovery that, if confirmed, will open a whole new scenario for the overall status of conservation of the species in the Mediterranean and confirming the very low impact of the actual harvest on the populations.

Moreover, the footnote with respect to application of the definition of 'decline' for commercially-exploited aquatic species included in Annex 5 of CITES Resolution Conf. 9.24 (Rev. Cop13) states that "*Depending on the biology, patterns of exploitation and area of distribution of the taxon, vulnerability factors (as listed in this Annex) may increase this risk, whereas mitigating factors (e.g. large absolute numbers or refugia) may reduce it.*" The genus is widely distributed and several countries have established refugia (Marine Protected Areas) totalling hundreds of thousand of hectares where harvest of the species is prohibited. Therefore, mitigating factors are present and extremely significant.





It is important to note that the supposed decline is based on an analysis of harvest data produced by FAO.

It is worth noting that in last 10 years period no decline of the harvest has been noted and that, more importantly, change in harvest techniques has greatly reduced the fishing efforts for the species. In fact, after the ban of the ingegno or Sant'Andrew cross (1994 EU regulation 1626/94), harvest is exclusively done by SCUBA and only by professional divers who harvest the species between 60 and 110m of depth with clear technical difficulties.

In fact diving time at such depths is very limited (maximum 20 minutes) and also the quantities that can be harvested are limited. Only a hammer can be used according to the management measures and legislation of many countries.

Spain, France, Morocco, Algeria Tunisia and Italy (Sardinia) have enacted specific legislation on the red coral harvesting. In particular, the Sardinia Region has banned the use of non-selective gears since 1989 and intermittently banned their use since 1979 when the first legislation on coral harvesting was enacted.

This explains the decline of the statistical figures.

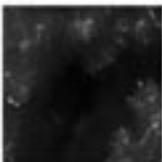
In fact, of the 100 tons harvested in 1978 that represents the peak of the harvest for the Mediterranean, 72 tons were harvested in Sardinia. The legislation introduced in Sardinia in 1979 and the intermittent ban on non-selective gears, together with high taxes imposed on the fishing vessels, explain the decline of harvest from 1979 to 1989 when the use of non-selective gears was definitively banned in Sardinia, five years before the entry into force of 1994 EC Regulation 1626/94, which banned the use of non-selective gears for the coral harvest in the Member States of the European Union.

Therefore, the statistical decrease is linked to the decrease in fishing efforts and not to the decline of the species. In the last 30 years the fishing efforts on *C. rubrum* in the Mediterranean has considerably decreased. This was due to the ban on the use of the "ingegno" and of the Sant'Andrew Cross (two different non-selective gears) and to the fact that in many countries fishing is exclusively done by licensed divers that can harvest the species in limited quantities only and only between 60 and 100-110m of depth. The populations below that depth are completely intact. Moreover, official statistics do not take into account the finding of dead coral banks generated by the detach of old or sick coral transported by streams.

The sentence included in the proposal that new stocks are discovered and rapidly exhausted is not correct for the Mediterranean. In fact here and in several part of the proposal, reference is made to the Sciacca Banks between Sicily and Tunisia as an example of overexploitation. This is incorrect, because the Sciacca Banks were accumulation of dead or fossilized coral transported by streams and may be by volcanic eruptions in three banks (Di Geronimo, 1994, in IUCN, 2007). All the coral was dead and no damage to live colonies was made.

The above also applies to Pacific species.

The harvest in the 80's in some Pacific banks led to the economic failure of fishing and craftsmanship enterprises in Taiwan (Province of China), due to the crash in prices generated by the harvested quantities and not by the depletion of the banks. Fishing was not economically viable due to very low prices.



In fact the banks of Emperor Seamounts and Milwaukee were not exhausted as suggested in the listing proposal, as the quantity of coral harvested from these banks caused a collapse in the prices of the raw material, the quality of which was also poor. Therefore, fishing was not anymore economically viable. It is clear that economic reasons caused a steep decline of the fishery not the decline of the harvested species.

It has to be noted that most coral in trade is harvested already dead. Almost 50% of the coral received from Asian countries was already dead when harvested.

The criterion is not met

Productivity

Contrary to what is stated in the proposal, the early sexual maturity of some *Corallium* species, like *C. rubrum*, is a good indicator of reproductive potential for some species.

■ 4- The implementation of a CITES listing, if accepted, is almost impossible

The proposal, if accepted, may generate serious implementation and enforcement problems such as that worked specimens cannot be readily recognizable at the species level. In addition, they are traded in hundreds of thousand if not millions of units, often as personal effects. The United States of America, to our knowledge, has views different from the EU on the treatment of such effects.

The administrative burden that a listing would cause would be useless for the conservation of the species.

For example, a necklace made in Italy could be composed of 4 or 5 different species of *Corallium* corals from different origins. One bead could be of Italian origin and an export permit should be issued following a non-detrimental finding from a Scientific Authority; one bead could be of North-African origin and an import permit and a subsequent re-export certificate should be issued; another bead could be of Asian origin and an import permit and a subsequent re-export certificate should be issued; and yet another bead could come from international waters and therefore a certificate of introduction from the sea should be issued and possibly an export permit; finally, in the same necklace fossil coral (like the one harvested in the Sciacca Banks in the 19th century) could be present. Would also *Corallium* fossil corals be listed in CITES?

How is it possible to apply CITES in the above-mentioned case? Not to mention the tens of millions of beads actually present in companies that are pre-Convention specimens.

For us, this is a bureaucratic nightmare that will not add anything to the conservation and sustainable utilisation of these species.

The impact on conservation of the regulation of such trade appears questionable and poses risks on the credibility of CITES.

■ 5- The Parties should adhere to FAO recommendations

The proposal mentions the fact that species belonging to the genus *Corallium* are not managed by any existing regional fishery management organizations. This is not fully correct as FAO-GFCM (General Fishery Commission for the Mediterranean) has been involved in the management of the red coral resource since 1983, the year of the first Technical Consultation on Red Coral.

Subsequently, FAO-GFCM has convened three more consultations on the fishery of *Corallium rubrum*: one in 1988 in Torre del Greco, one in 1989 in Algeria on the development of a scheme for rotating harvest of Mediterranean red coral resources and a symposium in Vicenza, Italy in 1991.

The Mediterranean countries that use this resource have implemented many of the recommendations of those meetings.

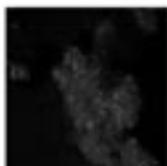
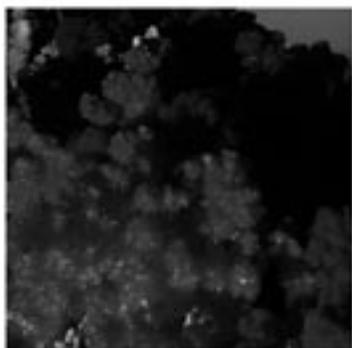
Recently a FAO Panel of experts has met in Rome to assess the CITES proposals and its assessment is against the inclusion in CITES Appendices. The assessment of FAO for the proposal to include the genus *Corallium* is available on the FAO web site .

ftp://ftp.fao.org/PI/DOCUMENT/r833_advanced/r833_advanced.pdf

The assessment of FAO is extremely important in the CITES context, also because a Memorandum of Understanding has been signed between the two organizations, requesting CITES to respect, to the greatest extent possible, the results of the FAO scientific and technical review of proposals to amend the Appendices.

The report of the FAO Panel of experts includes more important points than the ones cited by the CITES Secretariat that should have been fully taken into account by the CITES Secretariat, as requested by the Memorandum of Understanding.

In particular the following points were not, in our point of view, considered by the CITES Secretariat in its Recommendations; Biological considerations, assessment relative to quantitative criteria, risk and mitigating factors, implementation issues, identification of products in trade and "look-alike" issues, potential socio-economic impacts of an Appendix-II listing, likely effectiveness of a CITES Appendix-II listing for the conservation of the species, fisheries management considerations.



Moreover the report of the FAO's Panel of experts does not state that "strong local management of harvesting is lacking across the full range of these species" as reported by the CITES Secretariat but that "These long lived species require strong local management to prevent unsustainable harvesting. This is not currently the case across the full range of the species. Appropriate and effective management measures such as rotation of harvesting areas and protected areas, with effective enforcement, should be implemented by all range States to ensure sustainable harvesting of the species."

This means that many, although not all, countries that harvest *Corallium* species have management measures in place.

It is important to note that, according to the information we have, many Parties, including the United States of America and the Member States of the European Union, have participated actively in the negotiations for the MoU between FAO and CITES, giving high priority to the role of FAO in the management and scientific research on marine species.

The Parties to CITES should now take full account of the considerations of the FAO's Panel of experts and should take final position on the proposal based on the FAO assessment.

In conclusion and based on what will be explained in the following point, FAO is, in our point of view the key International Organization that, together with other Institutions including the European Commission (*C. rubrum* is included in Annex V of the Habitat Directive), should lead the efforts in the scientific research and the standardizations of management and harvest measures that are the key elements in the conservation and long-term utilisation of *Corallium* species

■ 6- The key issues are management measures and scientific research

In the Mediterranean several management measures are in place in countries where *Corallium rubrum* is harvested ranging from size limits, harvesting seasons, reporting and more detailed management plans including closed areas and quotas. Most of these measures were developed after the FAO-GFCM Technical Consultations in the period 1983-1991, although, for example, Sardinia (Italy) has a legislation in place since 1979.

In Japan, harvesting is subject to permits and quotas.

The Western Pacific Fishery Management Council's (WPFMC) Precious Corals Fisheries Management Plan (FMP) has regulated the harvest of *Corallium spp.* since 1983. The FMP imposes permit requirements valid for specific locations, harvest quotas for precious coral beds, a minimum size limit for pink coral, gear restrictions, area restrictions, and fishing seasons.

The Northwest Hawaiian Islands (NWHI) National Monument prohibits taking of precious coral (including pink and red coral) within the reserve. The State of Hawaii prohibits the take or sale of pink coral without a permit and has established a minimum size (25.4 cm). California prohibits the commercial harvest of *Corallium spp.* Guam prohibits the commercial harvest of all coral species without a permit. (IUCN, 2007)

It is clear that a standardization of the management measures and an overall assessment of their efficiency are needed and they will represent a crucial element in the conservation of the species harvested.

The Mediterranean and the Pacific countries, if guided by an international institution like FAO, could improve their management schemes and exchange best practices already in place for the management of the *Corallium* resource.

Instead of developing proper consultations on the management measures that are in place and how to improve them, the proposal seeks to impose trade regulations as the solution for a supposed decline of the species, a decline that does not exist.





We firmly believe that management of this natural resource comes before trade regulations that may potentially jeopardize the livelihoods of many families and diminish the scientific and technical interest in these species.

The scientific research in the Mediterranean is limited to shallow water populations of *Corallium rubrum*, and generally has not been oriented to management measures. No studies on deep-water populations exist, although recently and casually, during a research on deep ecosystems, *Corallium rubrum* has been photographed at nearly 600m of depth by a research team of the National Research Centre (CNR) of Italy (M. Taviani, pers. comm.)

It is worth noting that an important project named ME.RE.CO (Mediterranean Red Coral), prepared by seven Universities representing three countries (France, Italy and Spain), was presented for funding to the Fifth framework programme of the European Community for research, technological development and demonstration activities (1998-2002). Although the project reached the maximum level of evaluation, it was not funded. It seems that the project will be presented again at the Seventh framework programme of the European Community for research.

It is unfortunate that the project was not funded, because it could have given important new information on the status of the species in the Mediterranean.

Several researches are in progress in the Pacific and it is interesting to cite a paragraph of a publication of Grigg (2002) "*Precious Corals in Hawaii: Discovery of a New Bed and Revised Management Measures for Existing Beds*" that states: "The deep reef where Hawaii's precious corals are found is essentially a *MARE INCOGNITUM*, where almost every submersible dive produces new biological discoveries".

Scientific research and its applications for the management of *Corallium* species are therefore key elements to achieve the proper conservation of the species.

■ 7- The best solution to achieve proper conservation and the continuation of sustainable trade should be the starting of an international procedure and not to impose trade regulations that would be counterproductive

Several precedents in CITES history suggests a different approach to the conservation issues of a group of species instead of the listing in the Appendices.

The first one was the proposed listing of the edible-nest swiftlets of the Genus *Collocalia*.

Italy presented a proposal to the ninth meeting of the Conference of the Parties (Fort Lauderdale, 2004). The opposition of the range States led to the adoption of a resolution requesting that scientific research and management measures be analyzed in order to establish the status of the species and its management, and to assess whether a CITES listing would be appropriate. The resolution further requested to convene a workshop to discuss the results of the scientific research and management measures. The result of the workshop was that the listing was not appropriate.

Another and more recent precedent is represented by sea cucumbers.



At the 12th meeting of the Conference of the Parties (Santiago de Chile, 2002) the United States of America presented a Document (Doc. 45) on the Trade in Sea Cucumbers in the Families Holothuridae and Stichopodidae.

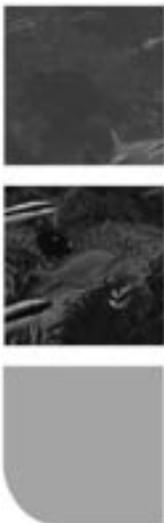
It is worth noting that the United States did not present a listing proposal, but a document requesting that a procedure be initiated to assess several aspects of the status and management of this group of species.

The following text is extracted from document Doc. 45 presented at the 12th meeting of the Conference of the Parties: *Biological and trade information strongly suggests that sea cucumbers may qualify for listing in Appendix II of CITES. Given the past and continuing levels of exploitation to meet international demand, these species meet criterion B. i), Annex 2 a, Resolution Conf. 9.24. Of critical importance to the debate is whether a CITES listing can contribute to the sustainable management of sea cucumbers. A number of issues have to be addressed before this question can be answered, including taxonomic uncertainties within the families, ability to distinguish taxa in the form they are traded, adequacy of biological information for making non-detriment findings, and ability to make legal acquisition findings. (underlining added) The intent of the United States in requesting that this issue be discussed by the Conference of Parties is to address the fundamental questions of whether CITES listing is appropriate for and can contribute to the conservation of sea cucumbers. To address this, we believe it is important to: (1) establish a dialogue between Parties, scientists, the industry and communities dependent on these resources; (2) encourage continued research to clarify taxonomy and identification of live and dried specimens in trade, and compile life-history characteristics, species distribution and demographic data; and (3) improve the collection of data quantifying the extent of harvest and international trade, documenting location and catch data by species, as well as data that will provide the best information about the current status of these species, the impact trade has on sea cucumber populations and their environments, and possible management approaches to promote sustainable harvest. We feel that this is an issue appropriate for discussion at CoP12, followed by referral to the Animals Committee for further action. Such a referral could come in the form of a decision adopted at CoP12.*

The situation of the genus *Corallium* is even more appropriate for the development of a similar procedure in lieu of a listing proposal: taxonomical uncertainties exists within the genus, the biological criteria of CITES Resolution Conf. 9.24 (Rev. CoP13) are not met, the species are difficult to distinguish in the forms they are traded, there are several and serious enforcement and implementation issues, the biological information is not adequate to make non-detriment findings unless more scientific research is carried out, livelihoods issues are present, management schemes are in place in several countries while in others there is a need to improve them.

All the above factors lead to the absolute need to request that a process be implemented instead of a listing proposal.

This process could be initiated, in lieu of the listing proposal, through a resolution or a decision of the Conference of the Parties in order to establish a dialogue between Parties, scientists, the industry and communities dependent on these resources; encourage scientific researches to promote the sustainability of harvesting through standardized management programmes and appropriate legislation; and review regulations controlling harvest of corals populations belonging to the genus *Corallium*, in accordance with the results of the scientific researches. For that purpose FAO should be urged to organize at least two technical workshops, at the regional level, one for Mediterranean countries and one for countries of the Pacific Region, in order to establish conservation priorities and actions for the sustainability of harvesting and management of coral species belonging to the genus *Corallium*, and to assess the need for a proposal of inclusion of the genus *Corallium* in Appendix II. The CITES Animals Committee could be invited to participate in these workshops.





The above shows the that the listing proposal presented by the United States of America is not appropriate and the need for a serious alternative approach to the long-term sustainability of the precious coral management and trade.

The process outlined above could therefore represent a serious way forward to understand several aspects of the genus *Corallium* status and trade, and also a crucial tool to improve management schemes and scientific research.

Rome and Lausanne, May 2007

