

THE WORLD JEWELLERY CONFEDERATION

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CIBJO/Coral Commission

The Coral Book

CIBJO standard

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Foreword

CIBJO is the French acronym for the Confédération Internationale de la Bijouterie, Joaillerie, Orfèvrerie, des Diamants, Perles et Pierres, which in English translates to the International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones (normally shortened to the International Jewellery Confederation). Founded in 1926 as BIBOAH, a European organisation whose mission was to represent and advance the interests of the jewellery trade in Europe, it was reorganised in 1961 and renamed CIBJO, in 2009 it was once again reorganised and officially named “CIBJO, The World Jewellery Confederation”. Today CIBJO, which is domiciled in Switzerland, is a non-profit confederation of national and international trade associations including commercial organisations involved in the jewellery supply chain. It now has members from countries representing all five continents of the world. CIBJO printed its first deliberations on terminology and trade practices in 1968.

It is the task of CIBJO to record the accepted trade practices and nomenclature for the industry throughout the world. The records of the trade practices complement existing fair trade legislation of a nation or in the absence of relevant national laws they can be considered as trading standards. In countries where laws or norms exist, which conflict with the laws, norms or trade practices in other countries, CIBJO will support the national trade organisations to prevent trade barriers developing. The purpose of CIBJO is to encourage harmonisation, promote international co-operation within the jewellery industry, consider issues which are of concern to the trade worldwide and to communicate proactively with members. Foremost amongst these the aim is to protect consumer confidence in the industry. CIBJO pursues all of these objectives through informed deliberation and by reaching decisions in accordance with its Statutes. CIBJO relies upon the initiative of its members to support and implement its standards, and to protect the trust of the public in the industry.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The work of CIBJO is accomplished through Committees, Commissions and Sectors. Committees and Commissions consider standards for use in the jewellery supply chain. Sectors represent levels of trade in the jewellery industry. Sectors and commissions advise the Executive Committee on current trade practices and issues that affect the jewellery industry.

Three independent sectors exist within the confederation:

Sector A — The Products Sector

Sector B — The Supply Chain Sector

Sector C — The Service Sector

The Executive Committee may appoint Commissions that consider detailed issues. At present these are:

Coloured Stone

Coral

Diamond

Ethics

Gemmological

Pearl

Marketing & Education

Precious Metals

World Jewellers Vigilance

The Commissions for Coral, Diamonds, Gemstones, Pearls and Precious Metals have collated the guidelines, which present the accepted trade practices for applying descriptions to these materials. It is in the best interest of all those concerned to be aware of them.

The Sectors and Commissions will propose changes in the standards, also known as the Blue Books, to the Executive Committee. After review the Executive Committee will submit the accepted proposals for adoption to the Board of Directors and if approved they will notify the assembly of delegates of the changes at the annual congress. Furthermore, it is our mutual responsibility to support these recommendations, which concern all professional people connected with coral, diamonds, gemstones, pearls and precious metals. CIBJO Standards are subject to government regulations in the respective jurisdictions of CIBJO members.

The national umbrella organisation for each country represents, in principle, all the national trade organisations involved in the sectors mentioned above. This democratic structure, which has contributed to CIBJO's world-wide recognition also includes international trade and commercial organisations, it provides an international forum for the trade to collectively draw attention to issues and implement resulting decisions.

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Introduction

This CIBJO Coral guide is designed to assist all those involved with coral and artificial products, by recording the accepted trade practices and nomenclature for the industry throughout the world.

The standard/rules are non-judgmental and the definitions and clauses contained herein are designed to prevent unfair or deceptive trade practices, they are formatted and worded to ensure that each gemstone and artificial products bought or sold is done with clarity and honesty. The stability of the market place depends up on the use of the proper nomenclature and the declaration of all known facts that ensure a fully informed purchase or sale, throughout the distribution pipeline all the way to the final consumer.

The following definitions apply in understanding how to implement a CIBJO standard and the normative references (Blue Books, PAS).

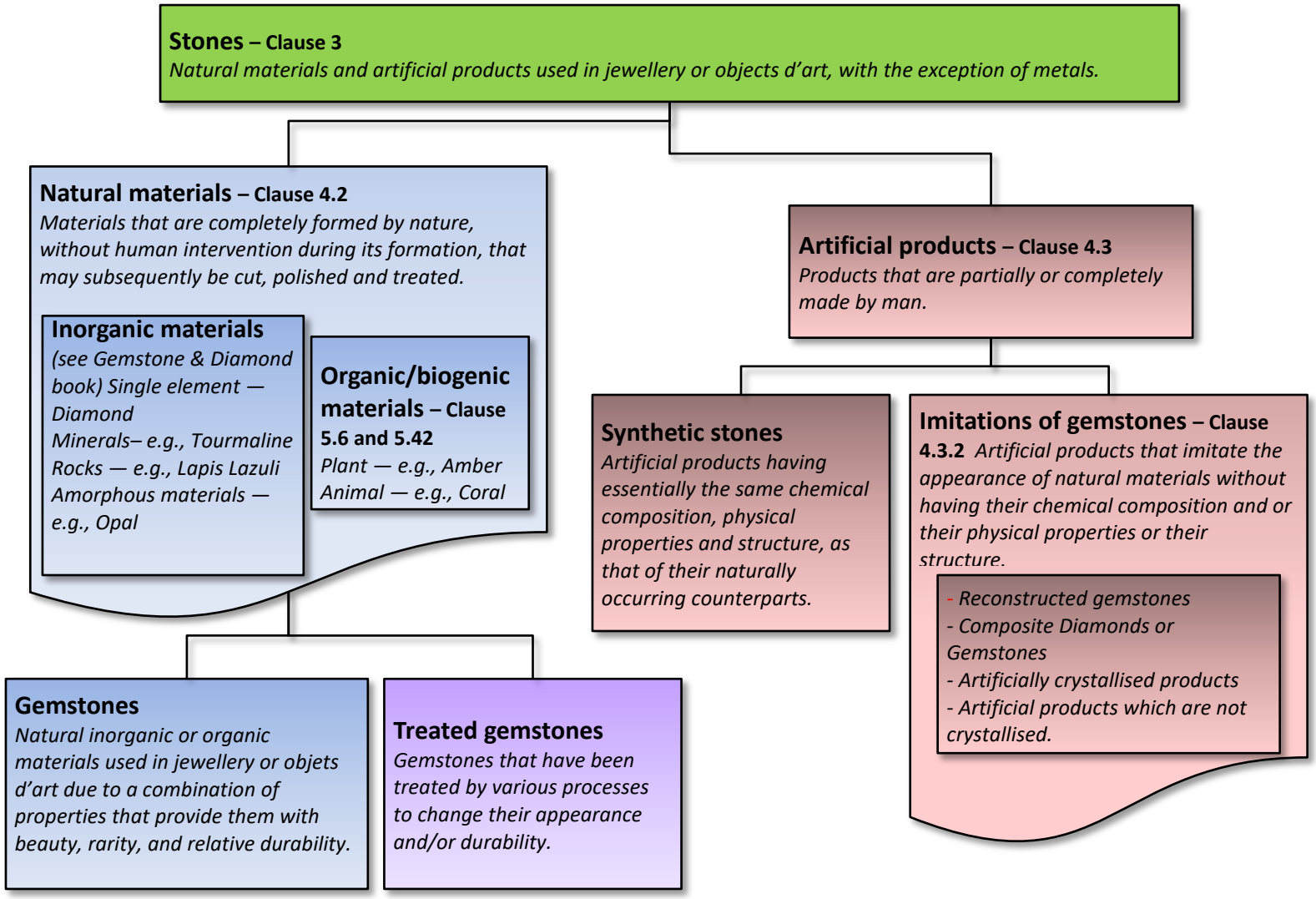
- “shall” indicates a requirement;
- “should” indicates a recommendation;
- “may” is used to indicate that something is permitted;
- “can” is used to indicate that something is possible.

The Scope (1) of the guide is set out, as are the Normative References (2). The Terms and Definitions (5) are expansive and are extensively cross referenced throughout the Classifications of Materials (3), Normative Clauses (4), Annex A Coral care requirements (6), Annex B Normative trade codes (7), Annex C Coral taxomony chart (0), Annex D Coral descriptions and definitions (9), Annex E Washington Conventions Cites (10), Annex F Coral sustainability and regulations for harvesting (11) and Annex G Geographic locations of precious coral harvesting (12). It is important that the reader refers to the relevant Terms and Definitions (5) when consulting each Normative Clause.

The CIBJO Coral Commission

November 2017

Gemstone, organic/biogenic materials and artificial product chart



CORAL AND ARTIFICIAL PRODUCTS — TERMINOLOGY AND CLASSIFICATION

1. Scope

The terminology and classification of coral (**Error! Reference source not found.**) and artificial products (5.3) are established with reference to commercial usage, in conformity with the classifications and practices of the coral, artificial product and jewellery trades. It shall be used by all traders participating as members of CIBJO member organisations within all member nations.

NOTE — CIBJO recognises that its standards are subject to government regulations in the respective jurisdiction of CIBJO members. In the event there are no government regulations in a member's country, the local industry regulation will take precedence as long as it is stricter.

2. Normative references

The following references are useful for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced guides (including any amendments) applies.

The Diamond Book, *CIBJO*, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario, 19, 20149, Milano, Italy. cibjo@cibjo.org.

The Gemmological Laboratory Book, *CIBJO*, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario, 19, 20149, Milano, Italy. cibjo@cibjo.org.

The Gemstone Book, *CIBJO*, International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario, 19, 20149, Milano, Italy. cibjo@cibjo.org.

The Pearl Book, *CIBJO* (International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario, 19, 20149, Milano, Italy. cibjo@cibjo.org.

The Precious Metal Book, *CIBJO* (International Confederation of Jewellery, Silverware, Diamonds, Pearls and Stones), the World Jewellery Confederation, Viale Berengario, 19, 20149, Milano, Italy. cibjo@cibjo.org.

PAS 1048, Grading polished diamonds, Part 1: Terminology and classification — Part 2: Test methods (2005), Beuth Verlag GmbH, Berlin. http://www.natdiamond.com/pas1048

Convention on International Trade in Endangered Species of Wild Fauna and Flora, Appendices I, II and III valid from 10 March 2016. International Environment House • Chemin des Anémones • CH-1219 Châtelaine, Geneva, Switzerland, info@cites.org.

International Standard, ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories ISO/IEC 17025:2005(E) Case postale 56 • CH-1211 Geneva 20, Web www.iso.org.

ISO 18323 :2015, Jewellery – Consumer confidence in the diamond

industry. http://www.iso.org/iso/catalogue_detail.htm?csnumber=62163.

3. Classification of materials

The jewellery industry recognises two categories of materials: natural materials, clause 3.1 and artificial products, clause 3.2.

3.1. Natural materials

3.1.1. Corals

Cnidarians with skeletons are referred to collectively as “coral”. Corals (5.15) are marine invertebrates formed by nature without human intervention. Corals may have been subsequently modified by normal lapidary practices.

3.1.1.1. Precious corals

Precious corals are those that are used in jewellery and decoration, specifically red, pink and white varieties with porcelain like luster after polishing. They are limited to species belonging to the family Corallidae, consisting of the three following groups: *Corallium*, *Pleurocorallium* and *Hemicorallium*. They have a specific gravity of approximately 2.8 and a hardness of 3 ½ on Mohs scale.

3.1.1.2. Common corals

Common corals are mostly of calcareous type, usually found in the coral reef e.g., sponge coral, bamboo coral and blue coral. After treatment, some species are sometimes used as ornaments.

3.1.2. Treated corals

Corals which have been treated to change their appearance and/or durability. See clause 4.2.5.

3.2. Artificial products

Products that are partially or completely made by man, see clause 4.3.

3.2.1. Imitations of corals

Artificial products (5.3) that imitate the appearance of natural materials (5.38), without having their chemical composition and/or their physical properties or their structure.

3.2.1.1. Artificially produced composite stones (see clause 4.3.2.2.)

Composite products (5.14) composed of two or more previously separate parts or layers assembled by bonding or other artificial methods. Their components can be natural and/or artificial.

3.2.2. Other artificial products

Artificial products (5.3) that imitate the appearance of corals.

4. Normative clauses

4.1. General clauses

4.1.1. Description and display

All materials classified in clause 3 shall be named, described and displayed in accordance with the definitions, annexes and the terminology set out in all the clauses herein. This applies to all publications, advertisements (5.1), communications addressed to consumers, and to the general (5.29) or specific information (5.52) given to a purchaser, prior to or during a final sale, as well as to all commercial documents (5.11) (e.g., offers, labels, memos, delivery notes and invoices) and to appraisals, gemmological identification and classification reports, etc.

4.1.1.1. Disclosure

Full disclosure (5.19) by the vendor to the purchaser of all material information (5.36) shall take place whether or not the information is specifically requested and regardless of the effect on the value of the product being presented or sold.

4.1.1.1.1. Verbal disclosure

Full verbal disclosure (5.19) shall take place using clear and understandable language prior to the completion of a sale.

4.1.1.1.2. Written disclosure

Full written disclosure (5.19) shall be conspicuously included on all commercial documents (5.11) in clear and plain language so as to be readily understandable to the purchaser. The disclosure shall immediately precede the description of the materials listed in clause 3 and shall be equally conspicuous to that description.

4.1.1.2. Terms used to disguise

It is contrary to the purposes of this document to make any misleading or deceptive statement, representation or illustration relating to origin, formation, production, condition or quality that does not conform in all respects with the clauses contained herein.

The terms “natural treated coral” or “treated natural coral” shall not be used because they can be misleading.

4.1.1.2.1. Display

In cases when coral is displayed, or jewellery is decorated, with treated coral that require specific information (5.52) and or with composites, reconstructed coral and imitations, an easily noticeable and legible label adjoining each item shall clearly indicate the precise nature of the objects being shown in accordance with the clauses herein.

4.1.1.2.2. Cultured

The term “cultured” (5.16) or “cultivated” shall only be used for cultured pearls.

4.1.1.2.3. The names of cuts

The name of coral cuts/shapes shall only be used in conjunction with the correct name of the materials from which they have been fashioned.

Examples — “through , half or not drilled coral beads”, “oval and round coral cabochon”, “marquise”, “baguette”, “emerald cut coral cabochon”, “pear-shape”, “drop-shape coral”, “barrel, cylinder, olive, tube and baroque coral shape” and “carved coral”.

4.1.2. Weight (mass)

4.1.2.1. Gram

The weight (5.60) of a coral shall be expressed in gram (g); The weight of a coral shall be stated in gram to two decimal places.

4.1.2.2. Momme, Kin and Kan

The units commercially used among the traders, fishermen and auction dealers for weighing coral in Japan and Taiwan. The metric system is also used:

1 momme is equivalent to 3.75 grams

1 kin is equivalent to 600 grams

1 kan is equivalent to 3,750 grams

4.1.2.3. Weight rounding

Weight shall be rounded downwards by considering the second decimal,
for example:

0.125 g = 0.12 g

0.196 g = 0.19 g

1.999 g = 1.99 g

NOTE — It is unfair trade practice to misrepresent the weight or to deceive as to the weight of any coral. It is also an unfair trade practice to state or otherwise represent the weight of all coral contained in any article unless such weight figure is accompanied with equal emphasis and prominence by the words “total weight”, or words of similar meaning, so as to indicate clearly that the weight so stated or represented is that of all coral in the article and not that of the centre or largest one.

4.1.2.4. Total weight

The total weight of corals and other gems contained in the same article can only be stated providing it is accompanied, with equal emphasis and conspicuousness, by the total separate weight(s) of each variety or species of coral.

4.1.3. Measurements

The measurements of a coral shall be expressed in millimetres to two decimal places. The following measurements shall apply:

- round and oval shape: minimum diameter:

- other shapes: length, width and depth (total height).

4.2. Coral clauses

4.2.1. Use of term

Only corals that conform to the definition contained in 5.15 and 5.46 shall be described as natural coral and all descriptions for natural coral shall conform to the content of all other clauses herein.

4.2.2. The terms “real”, “precious”, “genuine” or “natural”

The adjectives “real” (5.48), “precious” (5.47), “genuine” (5.30) or “natural” (5.38) shall only be used to refer to or designate natural corals.

NOTE — It is unnecessary to note the genesis of a natural material, as the use of the correct name of the material alone and without qualification states that it is natural.

4.2.3. Place of origin

4.2.3.1. Geographical areas

Names of geographical areas shall only be used when they denote the areas where coral have been harvested (place of origin).

4.2.3.2. Origin opinion

When places of origin for coral are presented they shall be considered as a matter of opinion.

4.2.3.3. Origin and quality

Place of origin does not imply a level of quality.

4.2.3.4. Processing centres

Geographical names where corals have been processed.

NOTE — The geographical origin may be used, e.g. Italy, Taiwan, Japan, China, etc.

4.2.4. Commercial names

4.2.4.1. Approval of commercial names

All commercial names, whether new or old, shall be submitted to CIBJO for approval and inclusion within this standard.

4.2.4.2. Names of corals used in direct conjunction with each other

Do not use the names of coral in direct conjunction with each other (for description of colour or otherwise) in such a fashion, that the identity of the material is not apparent: i.e. “Sardinian very dark” and “Oxblood colour”.

4.2.5. Treated corals

There are two categories of coral that have their appearance and/or durability altered (5.2) by a treatment:

4.2.5.1. Coral treated by methods requiring general information

Treated corals requiring general information on their description at the point of sale are:

4.2.5.1.1. Substances present in fissures that do not add colour

Coral that have fissures (5.23) permeated (5.44) with agents such as oil, wax, resin, polymer, or any similar substances.

NOTE — When filled fissures are polished flush with the surface of the stone, the filler will be found to have a different polished surface lustre to the host material, when viewed at 10 power magnifications by a trained observer.

4.2.5.1.2. Heating

Coral permanently treated by heating (5.32). If such modification has been undertaken to make the corals look antique (i.e. Sciacca), it shall be disclosed.

4.2.5.1.3. Bleaching

Coral treated by bleaching (5.7).

4.2.5.1.4. Disclosure requirements for treated coral requiring general information

Prior to the closing of a sale, members of the trade shall tell their customers which type of treatment a coral has undergone and ensure that they understand that the coral has been treated by one or more of the methods mentioned in clauses 4.2.5.1.1. to 4.2.5.1.4. In addition, commercial documents (5.11) accompanying the coral shall include information regarding the type of treatment used.

4.2.5.2. Coral treated by methods requiring specific information

4.2.5.2.1. Surface waxing

Coral that change colour with the use of agents such as oil, synthetic wax or organic fluid require specific information (5.52).

The exception is with natural colourless wax used to protect the surface of the coral, which is considered as a normal lapidary practice (5.39) — and not a treatment. Therefore, neither specific nor general information is required for natural colourless wax.

4.2.5.2.2. Artificial irradiation

Coral with a colour treated by artificial irradiation (5.35) to change its colour.

4.2.5.2.3. Dyes or other colouring agents

Coral with a colour treated by dyes (5.21) or other colouring agents.

4.2.5.2.4. Filling of fractures and cavities

Coral treated by the filling (5.22) of open fractures (5.25) or cavities.

4.2.5.2.5. Impregnation

Coral treated by impregnation (5.34) with plastic or similar substances.

NOTE — This clause does not include the bonding of powdered materials. These are artificial products.

4.2.5.2.6. Coating

Coral treated by coating (5.10).

4.2.5.2.7. Other treatments requiring specific information

Treatments requiring specific information (5.52), other than those mentioned in clause 4.2.5.1 must be disclosed in accordance with clause 4.2.5.2.

4.2.5.2.8. Disclosure requirements for treated coral requiring specific information on treatments

Coral requiring specific information on a treatment listed in clause 4.2.5.2.1. to 4.2.5.2.6, where the treatment shall be described by the correct name of its untreated counterpart immediately preceded by the word “treated” (except as in the Note 1 below) and shall, prior to the closing of the sale, require a verbal explanation that the gemstone has been treated. In the event of a written presentation, the word “treated” shall be of equal emphasis and prominence, with characters of the same size and colour as those of the name itself. Do not abbreviate or place an asterisk next to the name of a coral making reference to a footnote explanation of the fact that the stone is treated.

NOTE 1 — As an alternative to clause 4.2.5.2 the word “treated” may be replaced by the following terms (where these terms apply is indicated by the relevant clause(s) in parenthesis and following the term) providing that the application of these terms adhere to the requirements regarding the term ”treated” in clause 4.2.5.2.

“Artificially irradiated” (5.35), “Dyed” (5.21), “Fracture filled” (5.26), ”Impregnated” (5.34), “Coated” (5.10).

It is the responsibility of the seller to disclose irradiated coral in accordance to national regulations.

4.2.5.2.9. Display

When materials described in clauses 4.2.5.2 or merchandise containing these materials are displayed (whether alone or mixed with other natural materials, in a single piece of merchandise or otherwise), easily noticeable and legible labels, adjoining these loose stones or pieces of merchandise shall clearly indicate the precise nature of the objects being shown in accordance with the clauses herein.

4.2.5.3. Trade codes

Trade codes (5.55) listed in clause 7 Annex B shall only be used within the industry; they are not to be used for the consuming public. The codes are intended to facilitate the insertion of vital information on tags attached to merchandise, on invoices, and on other commercial documents that are used within the trade.

For definitions and instructions on how to use trade codes refer to clause 7 Annex B.

4.3. Artificial products clauses

4.3.1. General clauses

Any artificial product (5.3) may in certain situations comply with the classification and definition of an imitation (5.33). When this occurs the product may be described in accordance with clause 4.3.

4.3.1.1. Display

When artificial products or merchandise containing artificial products are displayed (whether

alone or mixed with natural materials, in a single piece of merchandise or otherwise), easily noticeable and legible labels, adjoining these loose products or pieces of merchandise shall clearly indicate the precise nature of the objects being shown in accordance with the clauses herein.

4.3.1.2. Names of geographic areas

Names of geographical areas producing coral and names of cutting or exporting centres shall not be used when referring to artificial products.

4.3.1.3. The terms “real”, “precious”, “genuine” and “natural” etc.

Refrain from the use of adjectives such as “real” (5.48), “precious” (5.46), “genuine” (5.30), “natural” (5.38), or any word or phrase of a similar meaning including “precious stone”, “gemstone” or “ornamental stone” in descriptions of artificial products.

4.3.1.4. Names of natural materials

Do not use the name of any natural material in direct conjunction with the name of an artificial product (for description of colour or otherwise) in such a fashion, that the identity of the coral is not apparent.

Example:	correct:	« treated coral »
	not correct:	« natural treated coral »

4.3.2. Imitations of coral

4.3.2.1. Description and display

The name of a coral imitation shall be used in conjunction with the term “artificial product” (5.3) or “artificial coral” (5.4) (except as in clause 4.3) which must appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the name itself. Do not abbreviate. Do not place an asterisk next to the name of an artificial coral, making reference to a footnote explanation of the fact that the product is artificial.

4.3.2.1.1. Name similarities

The name of a coral imitation shall not show a similarity to the name, or sound of the name (neither entirely, nor abbreviated, nor by way of an allusion), of any natural material nor be an established name for another coral imitation.

4.3.2.1.2. Terms other than “artificial product” or “artificial coral”

Do not use a qualifying term other than “artificial product” (5.14) or “imitation of coral” to describe any artificial coral except as allowed for in clause 4.3.2.

4.3.2.2. Artificially produced composite coral

4.3.2.2.1. Description and display

Artificially produced composite products (5.14) shall (except as in clause 4.3) be described by the words “doublet” (two parts) or “triplet” (three parts) or “composite” (more than three parts — see also clause 4.3.2.2.4 below), and these words shall be immediately preceded or followed by the correct names of the components of the assembled product (except as in clauses 4.3.2.2.2 and 4.3.2.2.3), the names of which shall be mentioned from the upper part downwards and be separated by a slash (/). However, if all parts of a composite (excluding

the bonding agent) are the same material, the name of this material shall be stated *only* once. The words ”doublet” (5.20) or ”triplet” (5.57) or ”composite” (5.14) must appear, in the event of a written presentation, with equal emphasis and prominence, with characters of the same size and colour as those of the names of the components. Do not abbreviate. Do not place an asterisk next to any name or combination of names, making reference to a footnote explanation of the fact that the product is a composite coral.

4.3.2.2.2. Coral doublet

A composition of two pieces where a slice of natural coral is bonded to a base material shall be called a “coral doublet” or “doublet coral”.

4.3.2.2.3. Coral triplet

A composition of three pieces where a thin slice of natural coral is bonded to a dark base and provided with a transparent top layer, must be called a “coral triplet” or ”triplet coral”.

4.3.2.2.4. Coral mosaic

The word “composite” shall be replaced by the word “mosaic”, when the various parts of the composite are placed side by side (to create a picture or pattern or otherwise) providing that the application of this term adheres to the requirements regarding the term ”composite” in clause 4.3.2.2.1.

4.3.2.2.5. Terms other than those specified in clause4.3.2.2.1.

Do not refer to any composite stone in any way other than that specified in clause 4.3.2.2.1 (except as in clause 4.3).

5. Terms and definitions

For the purposes of this CIBJO Standard, the following terms and definitions shall apply.

5.1. Advertisement

the activity of attracting public attention to a product or business, as by announcements in the print, broadcast, or electronic media.

5.2. Alteration

any change made to corals that requires general (4.2.5.1) or specific (4.2.5.2) information.

5.3. Artificial products

products which are partially or completely made by man.

5.4. Artificial coral

an imitation with no known natural counterparts.

5.5. Assembled coral

see composite products (5.14).

5.6. Biogenic gem materials

gem materials, resulting from the activity of living organisms, usually used in jewellery or objets d'art (5.40) due to a combination of properties that provide them with beauty, rarity and relative durability.

5.7. Bleaching

to remove or alter a colour by means of chemical or physical agents or light. See clause 4.2.5.1.3.

5.8. Bonding

the cohesion of two or more parts or layers. See composite products (5.14).

5.9. Cleaning

to leave corals in a mixture of water and hydrogen peroxide (5%) for a couple of days to bring the pigment back to its original colour. Cleaning is considered a normal lapidary practice (5.39).

5.10. Coating

a layer of a substance spread over the surface, or part of the surface, of a stone for protection, colouration, decoration or deception; a covering layer. See clause 4.2.5.2.6.

5.11. Commercial document

any writing or electronic transmission that evidences, anticipates or concludes a commercial transaction, including any agreement, memorandum of agreement, purchase order, blanket purchase order, identification reports, blanket purchase agreement, purchase order acknowledgment, request for proposal, quote, offer, warranty, representation certification, guaranty, import documentation, packing list, bill of sale, memorandum of consignment, receipt and advertisements. Commercial documents include mandatory information of the seller, and when necessary the buyer.

5.12. Commercial name

a name assigned for marketing purposes. See clause 4.2.4 and 4.2.4.1.

5.13. Common coral

common corals are mostly calcareous types that are usually found in coral reefs, and are not considered as "precious coral".

NOTE — For additional information regarding "Precious coral" see clauses 5.46 and 9.1, and the annexes.

5.14. Composite products

artificial products (5.3) composed of two or more previously separate parts or layers assembled by bonding or other artificial methods. Their components may be natural and/or artificial but at least one part must be coral.

5.15. Corals

many corals are in the class Anthozoa of phylum Cnidaria, whereas some, such as stylaster corals, are in the class Hydroza. They live in compact colonies of many identical individual polips. The group lives in deep ocean and secrete calcium carbonate to form a hard skeleton. The chemical composition of coral is calcium carbonate (82–87%) with minor magnesium. It can also include small amounts of calcium sulphate, iron oxide and various phosphates.

NOTE – In the jewellery trade coral is the calcareous secretion produced by various corals.

5.16. Cultured

the term “cultured” shall only be applied to “cultured pearls”. The secretion of layers is caused by the metabolism of living molluscs. Cultured pearls are formations secreted in the interior of the productive molluscs.

NOTE — See the CIBJO Pearl Book for additional information.

5.17. Cut

the style or form in which coral and artificial products have been fashioned.

5.18. Cutting

one of several normal lapidary practices (5.39) used to transform corals.

5.19. Disclosure

the act of providing all material information (5.36). To fully inform a purchaser, prior to or during a final sale.

5.20. Doublet

a composite coral consisting of two parts.

5.21. Dyeing

application of a dye or stain to natural materials (5.38) or artificial products (5.3) to alter their colour. See clause 4.2.5.2.3.

5.22. Filling

to introduce a substance that occupies a whole or part of a void. See clause 4.2.5.2.4.

5.23. Fissure

a very narrow opening; a fine fracture.

5.24. Fluid

a substance of low enough viscosity that it will flow easily.

5.25. Fracture

an opening; a crack.

5.26. Fracture filling

to occupy the whole or part of a fracture with a substance, e.g. resins, oil, etc., to pervade; to spread throughout; to occupy completely; or to make full, with the purpose of making the fracture less visible. See clause 4.2.5.2.4.

5.27. Gem

another term, often used as an adjective, to describe an exceptional coral or other gemstone noting perfection or very high quality. See gemstone clause 5.28.

Only the term “Gem” shall be qualified with the terms “real”, “precious”, “genuine” and “natural”.

5.28. Gemstone

a natural inorganic geological materials/substances, a mineral or an aggregation of two or more minerals, in a form of a rock, which has been formed completely by nature without human interference.

NOTE 1 — Gemstones are usually used in jewellery or objets d’art due to a combination of properties that provide them with beauty, rarity and relative durability.

NOTE 2 — For the purpose of this standard clauses and examples referring to coral may also apply to precious stones and ornamental coral.

5.29. General information

a method to provide information, at the time of sale, when materials have been subjected to a treatment that requires a verbal disclosure (5.19) and a general comment on a commercial document (5.11). See clause 4.2.5.1.

5.30. Genuine

actually possessing the alleged or apparent attribute or character. See clause 4.3.1.3.

5.31. Gram

the gram is a metric system unit of mass.

5.32. Heating

treating a coral by a thermal process, e.g. in a furnace, kiln or other heating apparatus. See clause (4.2.5.1.2).

5.33. Imitations

artificial products (5.3) that imitate the appearance of natural materials without having their chemical composition or their physical properties or their structure.

5.34. Impregnation / Impregnated

to fill throughout; saturate. See clause 4.2.5.2.5.

5.35. Irradiation / Irradiated

exposing coral, gemstones, diamonds, synthetic stones, pearls and cultured pearls to any form of radiation which is controlled wholly or partially by man, usually to alter the

appearance of the material. See clause 4.2.5.2.2.

5.36. Material information

any information that, if disclosed (5.19) prior to and or during the time of sale, would alter the value, saleability or desirability of materials listed in clause 3, including any care, cleaning and or maintenance requirements.

5.37. Natural colourless wax

the use of a natural colourless wax is used to protect the surface of the coral. The wax can be of vegetable, animal and mineral (paraffin) origin. The use of a natural colourless wax is considered as a normal lapidary practice (5.39) — and not a treatment. Therefore, neither specific nor general information is required for natural colourless wax.

5.38. Natural materials

materials that are completely formed by nature, without human intervention during its formation, that may subsequently be modified by normal lapidary practices (5.39) and or altered by a treatment that require general (5.29) or specific (5.52) information.

5.39. Normal lapidary practices

methods used to fashion gemstones and artificial products which include cutting (5.18), sawing, grinding, faceting, polishing, carving, engraving, drilling and cleaning (5.9).

5.40. Objets d’art

an object considered to be of artistic worth.

5.41. Oiling

filling coral fissures and/or fractures with agents such as cedar wood oil, paraffin oil, etc. to make the fissures and fractures less visible. See clause 4.2.5.1.1.

5.42. Organic gem materials

gem materials, relating to or derived from living matter, usually used in jewellery or objets d’art (5.40) due to a combination of properties that provide them with beauty, rarity and relative durability.

5.43. Ornamental coral

coral that is used in objets d´art (5.40).

5.44. Permeate

the filling of fissures and/or fractures with oil, wax, resin, polymer or other fluid substances, other than glass to diminish their appearance. See clause 4.2.5.1.1.

5.45. Place of origin

name of the geographical origins where corals have been harvested, e.g., Mediterranean Sea, Atlantic Ocean, South China Sea, Sea of Japan and Pacific Ocean.

5.46. Precious coral

precious corals are those that are used in jewellery and decoration, specifically red, pink and white varieties with porcelain like luster after polishing. They are limited to species belonging to the family Corallidae, consisting of the three following groups: *Corallium*, *Pleurocorallium* and *Hemicorallium*. They have a specific gravity of approximately 2.8 and a hardness of 3.5 on Mohs scale.

The distinguishing characteristic of precious coral, which is used in jewellery and ornamental products, is their durable and intense red colour, and or pink or white skeleton.

NOTE — For more information regarding precious coral see clause 9.1 and the annexes.

5.47. Precious stones

see gemstones.

5.48. Real

genuine (5.30); not artificial (5.3 and 5.4). See clause 4.3.1.3.

5.49. Semi-precious

a misleading term that shall not be used.

5.50. Simulant

see imitations (5.33).

5.51. Special care

additional care needed to preserve the appearance of natural materials (5.38) or artificial products (5.3), or any alteration which require general (5.29) or specific information (5.52), that may have been applied.

5.52. Specific information

a disclosure method to provide information to consumers in all publications, advertisements (5.1), communications, commercial documents (5.11) and at the time of sale, when materials have been subjected to a treatment that requires a combination of a verbal and written disclosure (4.1.1.1.2). Also see clause 4.2.5.1.4.

5.53. Stability

a measure of the ability of coral to maintain their appearance under normal wear and care.

5.54. Stones

natural geological materials and artificial products used in jewellery or objet d’art (5.40), with the exception of metals.

5.55. Trade codes

a list used within the trade, consisting of one or more words, for labelling the quality. See clause 0 Annex C.

5.56. Treated coral

corals that have been treated to change their appearance and or durability. See clause 4.2.5.

5.57. Triplet

a composite stone (5.14) consisting of three parts.

5.58. Void

a cavity that contains no matter.

5.59. Waxing

the application of a colourless wax or similar products to, or near, the surface of coral.

5.60. Weight

mass of a diamond, gemstone, coral, pearl or cultured pearl, synthetic stone and other artificial products.

NOTE — The SI (Système International) generally uses the term *mass* instead of *weight*. Mass is a measure of an object's inertial property, or the amount of matter it contains. Weight is a measure of the force exerted on an object by gravity or the force needed to support it.

6. Annex A — Coral care requirements

6.1. Normal care

With all corals avoid rough handling and when not in wear, keep items of jewellery separate to avoid scratches. Clean with soft leather and gentle brushing. Ultrasonic cleaners should not be used for porous gems e.g. coral, pearl, and other organic/biogenic gemstones,

6.2. Special care

In addition to normal care, some corals have special care requirements

a. Corals are prone to scratching due to low hardness. Wear them with care.

b. Corals are porous. Do not allow contact with coloured fluids.

c. Corals are prone to crack due to loss of structural water. Keep away from heat and drying environments.

d. Corals are prone to damage due to thermal shock. Do not expose them to extreme temperature changes.

e. Corals fade or revert to original colour when exposed to strong light. Do not wear or leave them for extended periods under these conditions.

f. Corals dissolve upon contact with acids and solvents (such as nail varnish remover). Keep them away from all solvents and other strong chemicals.

g. Corals are particularly susceptible to damage from ultrasonic cleaning. Do not expose them to ultrasonic cleaning.

h. Modifications to corals with dye, oil, resin, wax, or plastic are not permanent. Keep away from all solvents (including various dish-washing liquids), chemicals and heat.

i. Coral with superficial colour and surface layers are not suitable for re-cutting or re-polishing.

j. As a biogenic gem, coral must be kept in a condition that is not too dry and not too humid.

k. Coatings on coral are often easily removed by the action of solvents, heat or abrasives, which are generally harmful to the coral. Keep away from all solvents, heat or abrasives. Coated coral is not suitable for re-cutting or re-polishing.

6.3. Fading and other colour changes

Some corals that have been colour-treated may fade or revert to their original colour when exposed to natural sunlight, artificial light or strong display lights. In these cases, special care advice shall include instructions that these corals should not be exposed to strong natural or artificial light or to strong display lighting for an extended period of time.

7. Annex B — Normative trade codes

Trade codes

Trade codes shall only be used within the industry.

Methods of coral treatment disclosure shall be in accordance with clause 4.2.5.

7.1. N code

The N code shall only be used for corals that have no known treatment. See clause 4.2.5.

7.2. Codes to disclose treated corals that require general information

Codes that may be used to disclose corals treated by methods requiring general information (5.29) on their modification. See clause 4.2.5.1.

H Heating (5.32)

O Oil/Resin (5.41)

W Waxing (5.59)

B Bleaching (5.7)

7.3. Codes to disclose treated corals that require specific information

Codes that may be used to disclose corals treated by methods requiring specific information (5.52). See clause 4.2.5.2.

C Coating (5.10)

D Dyeing (5.21)

I Impregnation (5.34) (with colourless foreign substances other than oil/resin)

7.4. SC code

Code for corals that require special care (5.51). See clause 6 Annex A.

sc Special care (5.51)

8. Annex C – Coral taxonomy chart

Anthozoa (class)

Anthozoa often have large polyps that allow for digestion of larger prey and also lack a medusa stage. Certain species of coral live in isolation; however, most corals form colonies of identical polyps. These closely resemble anemones in structure, although they are much smaller.

Octocorallia (subclass)

Comprises around 3,000 species of water-based organisms formed of colonial polyps with 8-fold symmetry. These organisms have an internal skeleton secreted by mesoglea and polyps with eight tentacles and eight mesentaries.

Hexacorallia (subclass)

Comprises approximately 4,300 species of aquatic organisms formed of polyps, generally with 6-fold symmetry. These organisms are formed of individual soft polyps which in some species live in colonies and can secrete a calcite skeleton.

(order)

Alcyonacea (soft coral): An order of corals which do not produce calcium carbonate skeletons. Soft corals contain minute, spiny skeletal elements called sclerites, useful in species identification. Sclerites give these corals some degree of support and give their flesh a spiky, grainy texture that deters predators. Unlike stony corals, most soft corals thrive in nutrient-rich waters with less intense light. Among them, the Corallidae family include precious corals: *Corallium rubrum, Corallium japonicum, Pleurocorallium elatius, Pleurocorallium konojoi, Pleurocorallium secundum, Hemicorallium regale, Hemicorallium laauense and Hemicorallium sulcatum.*
Helioporacea (blue coral): Forms massive lobed crystalline calcareous skeletons in colonial corals. It has no spicules, and is the only octocoralknown to produce a massive skeleton formed of fibrocrystalline aragonite fused into lamellae, similar to that of the Scleractinia (stony corals).
Pennatulacea (sea pens): Unlike other octocorals, however, a sea pen's polyps are specialised to specific functions. Comprises 16 families.

(order)

Actiniaria (sea anemones): A group of water-dwelling, predatory animals. Comprises 46 families. **Antipatharia (black coral):** group of deep water, tree-like corals related to sea anemones.
Ceriantharia: tube-dwelling anemones, but belonging to an entirely different subclass than sea anemones.
Corallimorpharia: Closely related to stony corals (Scleractinia). Contains 46 species, inside 10 genera in 4 valid families.
Scleractinia (stony corals): Also called hard corals. Scleractinian corals may be solitary or colonial. Consists of 35 families.
Zoantharia: Zoanthids can be distinguished from other colonial anthozoans and soft coral by their characteristic of incorporating sand and other small pieces of material into their tissue to help make their structure (except for the family Zoanthidae). Consists of 7 families.

9. Annex D — Coral descriptions and definitions

9.1. Precious coral description and definition

Precious corals — Summary

For commercial use (e.g., import and export) it is suggested to use CITES Classification.

CITES Classification	New Genus Name	Commercial Name	Colour	Fishing Area and Depth	Corm Feature (Morph. Size & Weight)
Corallium rubrum	*Corallium rubrum*	Mediterranean Sardinian	Uniform red.	Mediterranean and west African Atlantic areas. 50–800 m	Bush-shape Avg. height: 15 cm Avg. diam.of trunk: 8 mm Avg. weight: 100 g
Corallium rubrum	*Corallium rubrum*	Sciacca	Orange, pink and darked “smoked” orange colour.	Mediterranean, south part of Sicily. 30–60 m	Small branches Avg. height: 7–10 cm Avg. diam.of trunk: 5 mm
Corallium japonicum	*Corallium japonicum*	Aka Moro Oxblood	Dark red and very dark red with lengthwise white "soul".	Japan 80–300 m	Fan-shape Avg. height: 20 cm Avg. diam.of trunk: 12 mm Avg. weight: 200 g
Corallium elatius	*Pleurcorallium elatius*	Cerasuolo Momo Satsuma	Bright red, salmon, orange and flesh colour with lengthwise white "soul".	Taiwan and Sea of Japan 150–350 m	Fan-shape Avg. height: 35 cm Avg. diam.of trunk: 25 mm Avg. weight: 500 g
Corallium elatius	*Pleurocorallium elatius*	Angel skin Boké Magai	Flesh pink with different colour intensity.	Japan, Taiwan, Hainan and Hong Kong 150–300 m	Fan-shape Avg. height: 35 cm Avg. diam.of trunk: 25 mm Avg. weight: 500 g
Corallium konjoi	*Pleurocorallium konjoi*	Pure White Shiro	Milky white and red or pink speckled white.	South China Sea and Hainan 80–300 m	Fan-shape Avg. height: 35 cm Avg. diam.of trunk: 25 mm Avg. weight: 500 g
Corallium secundum	*Pleurocorallium secundum*	Midway Rosato White/Pink	Red speckled or veined white or pink; uniform clear pink.	Hawaii and Midway Island (1965) 400–600 m	Fan-shape Avg. height: 25 cm Avg. diam.of trunk: 15 mm Avg. weight: 200 g
	Hemicorallium regale	Garnet	Pomegranate-colour with different intensity shades of uniform pink.	Hawaii (1979) 350–600 m	Parallel shape Avg. height: 15 cm Avg. diam.of trunk: 8 mm Avg. weight: 100 g
	Hemicorallium laauense	Deep Sea	Bright white, clear pink, white pomegranate. red veined or spotted.	Midway (1981) N/W around Emperor Seamount 1,000–2,000 m	Fan-shape and parallel trunks lacking of primary and secondary branches. Avg. height: 30 cm Avg. diam.of trunk: 10 mm Avg. weight: 150 g
	Hemicorallium sulcatum	Misu Missu Miss	Pink to violet uniform colour	North Philippines, Taiwan and Japan (Boso Peninsula) 100–300 m	Fan long shape Avg. height: 25 cm Avg. diam.of trunk: 15 mm Avg. weight: 200 g

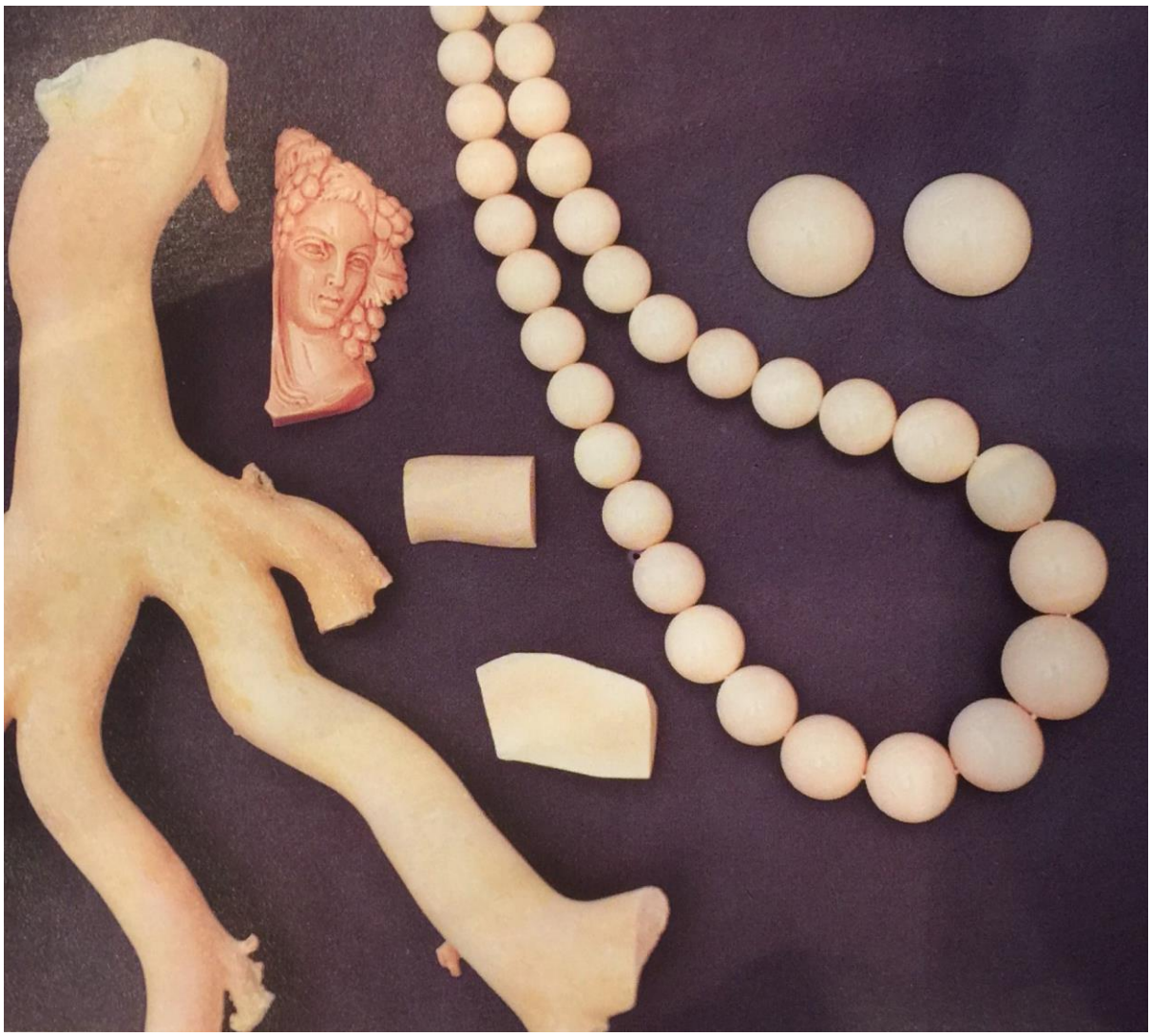
9.1.1. Aka (*Corallium japonicum*)

CITES Classification	*Corallium japonicum*
New genus name	*Corallium japonicum*
Commercial names	Aka, Moro and Oxblood
Colour	Dark red and very dark red with lengthwise white "soul".
Fishing area	Japan
Depth	80–300 m
Shape	Fan-shape
Avg. height	20 cm
Avg. diameter of trunk	12 mm
Avg. weight	200 g

9.1.2. Momo (*Pleurocorallium elatius*)

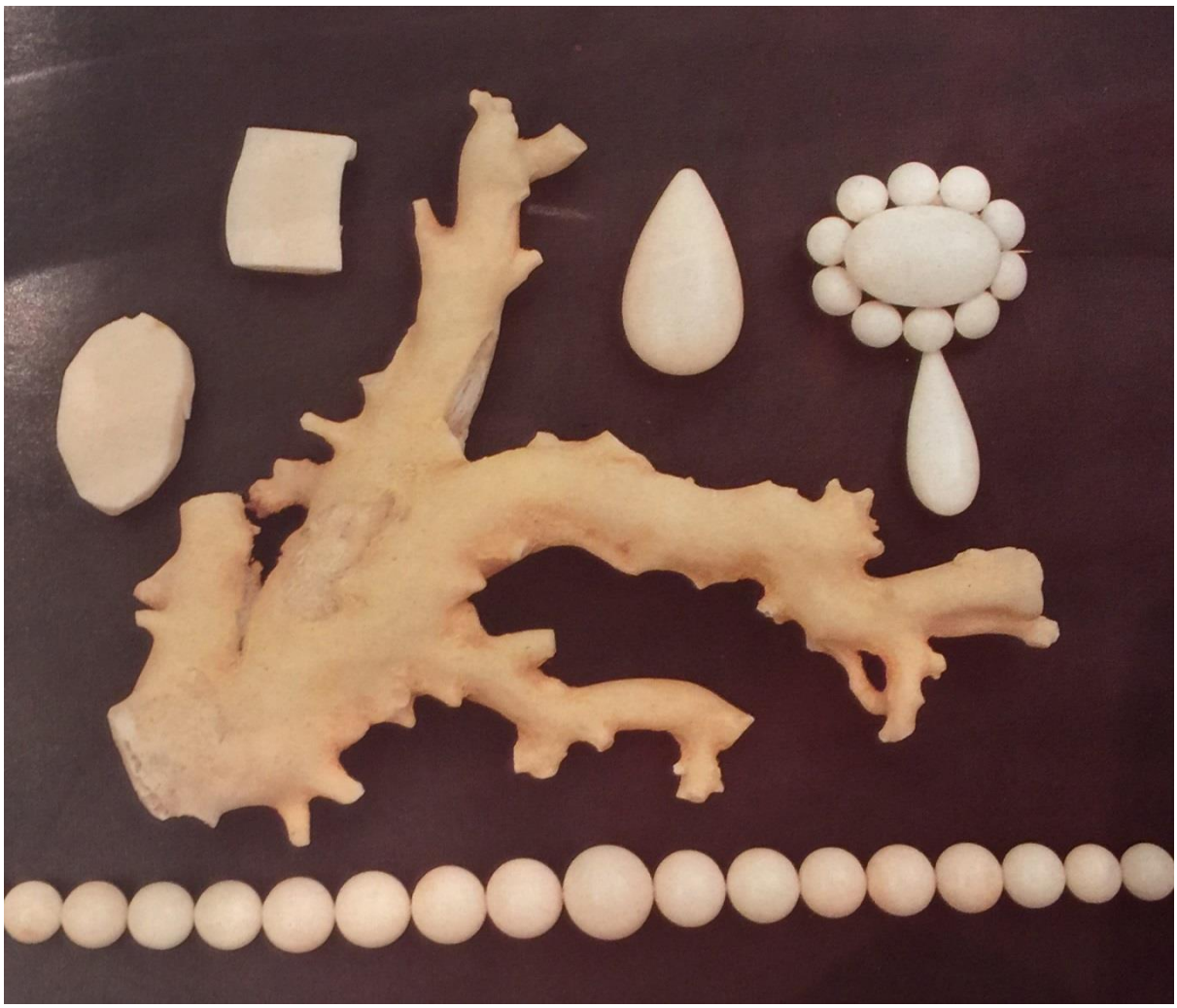
CITES Classification	*Corallium elatius*
New genus name	*Pleurcoralium elatius*
Commercial name	Momo, Cerasuolo, Satsuma
Colour	Bright red, salmon, orange, and flesh colour with lengthwise white “soul”.
Fishing area	Taiwan and Sea of Japan
Depth	150-350 m
Shape	Fan shape
Average height	35 cm
Average diameter of trunk	25 mm
Avg. weight	500 g

9.1.3. Angel skin (*Pleurocorallium elatius*)



CITES Classification	*Corallium elatius*
New genus name	*Pleurocorallium elatius*
Commercial name	Angel skin, Boké and Magai
Colour	Flesh pink with different colour intensity.
Fishing area	Japan, Taiwan, Hainan and Hong Kong
Depth	150–300 m
Shape	Fan-shape
Average height	35 cm
Average diameter of trunk	25 mm
Avg. weight	500g

9.1.4. Pure White (*Pleurocorallium konojoi*)

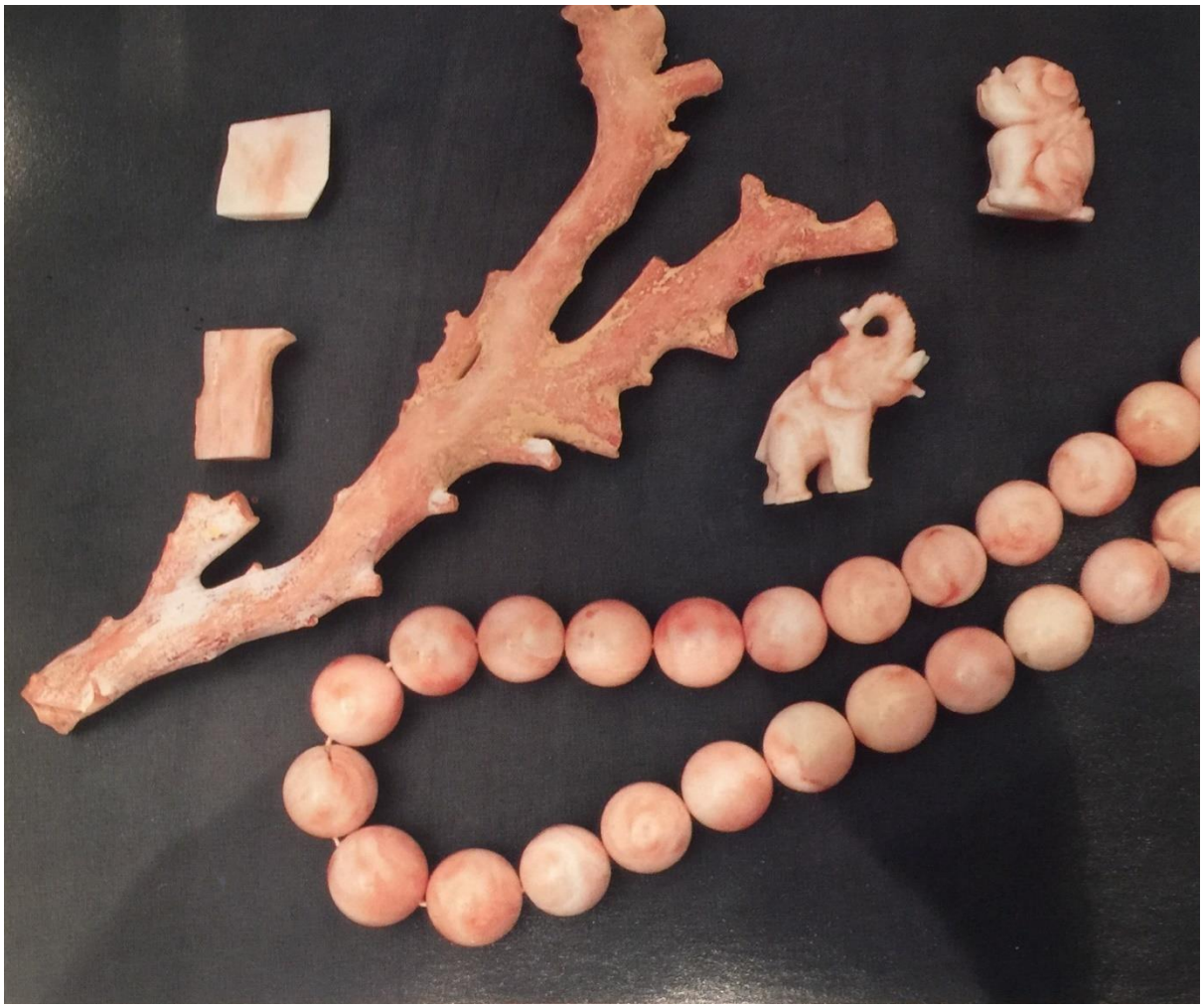


CITES Classification	*Corallium konjoi*
New genus name	*Pleurocorallium konojoi*
Commercial name	Pure White and Shiro
Colour	Milky white and red or pink speckled white.
Fishing area	South China Sea and Hainan
Depth	80–300 m
Shape	Fan-shape
Average height	35 cm
Average diameter of trunk	25 mm
Avg. weight	500 g

9.1.5. Midway (*Pleurocorallium secundum*)

CITES Classification	*Corallium secundum*
New genus name	*Pleurocorallium secundum*
Commercial name	Rosato, Midway and White/Pink
Colour	Red speckled or veined white or pink; uniform clear pink.
Fishing area	Hawaii and Midway Island (1965)
Depth	400–600 m
Shape	Fan-shape
Average height	25 cm
Average diameter of trunk	15 mm
Avg. weight	200 g

9.1.6. Deep Sea (*Hemicorallium laauense*)



CITES Classification	Not classified the name *Corallium secundum* is suggested.
New genus name	*Hemicorallium laauense*
Commercial name	Deep Sea
Colour	Bright white, clear pink, white pomegranate. red veined or spotted.
Fishing area	Midway (1981). N/W around Emperor Seamount
Depth	1,000–2,000 m
Shape	Fan-shape and parallel trunks lacking of primary and secondary branches.
Average height	30 cm
Average diameter of trunk	10 mm
Avg. weight	150 g

9.1.7. Garnet (*Hemicorallium regale*)

CITES Classification	Not classified the name *Corallium secundum* is suggested.
New genus name	*Hemicorallium regale*
Commercial name	Garnet
Colour	Pomegranate-colour with different intensity shades of uniform pink.
Fishing area	Hawaii (1979)
Depth	350–600 m
Shape	Parallel shape
Average height	15 cm
Average diameter of trunk	8 mm
Avg. weight	100 g

9.1.8. Missu (*Hemicorallium sulcatum*)

CITES Classification	Not classified. The name *Corallium secundum* is suggested.
New genus name	*Hemicorallium sulcatum*
Commercial name	Misu, Missu and Miss
Colour	Pink to violet uniform colour
Fishing area	North Philippines, Taiwan and Japan (Boso Peninsula)
Depth	100–300 m
Shape	Fan long shape
Average height	25 cm
Average diameter of trunk	15 mm
Avg. weight	200g

9.1.9. Sardinian (*Corallium rubrum*)

CITES Classification	*Corallium rubrum*
New genus name	*Corallium rubrum*
Commercial name	Sardinian and Mediterranean
Colour	Uniform red.
Fishing area	Mediterranean and west African Atlantic areas
Depth	50–800 m
Shape	Bush-shape
Average height	15 cm
Average diameter of trunk	8 mm
Avg. weight	100 g

9.1.10. Sciacca (*Corallium rubrum*)

CITES Classification	*Corallium rubrum*
New genus name	*Corallium rubrum*
Commercial name	Sciacca
Colour	Orange, pink and darked “smoked” orange colour.
Fishing area	Mediterranean, south part of Sicily.
Depth	30–60 m
Shape	Small branches
Average height	7-10 cm
Average diameter of trunk	5 mm

9.2. Distinction between precious and common coral

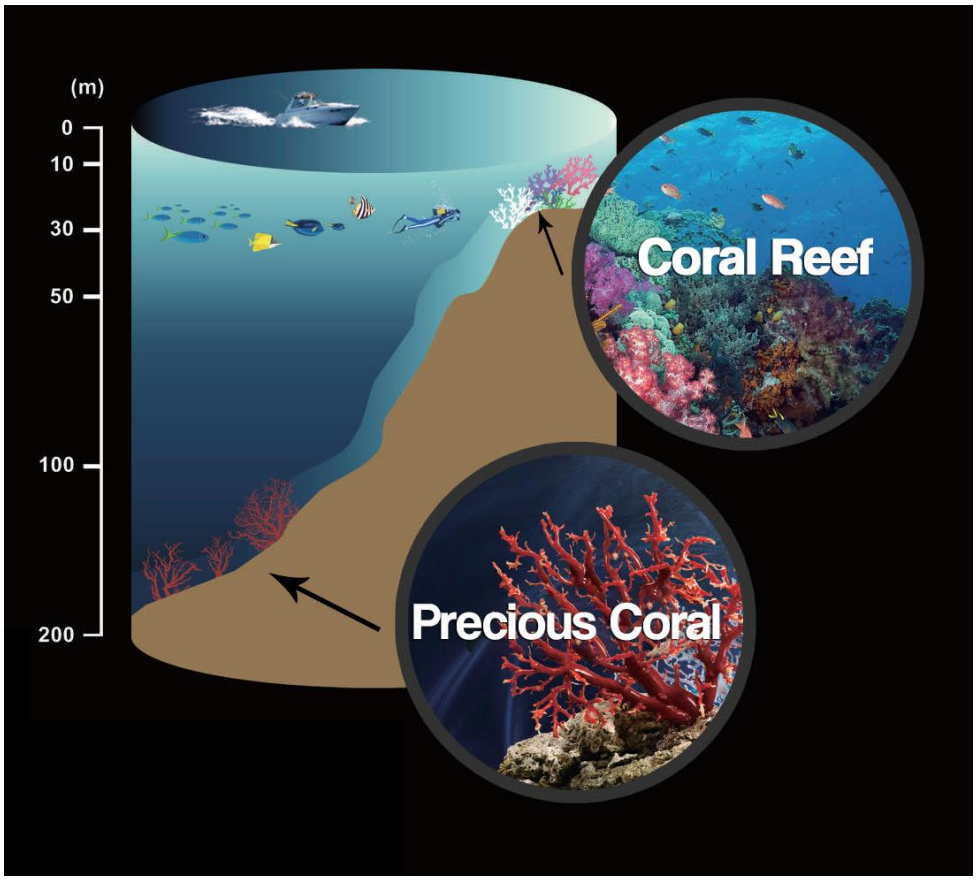
Coral is typically divided into two distinct categories:

1. Sea reef coral and other common coral
2. Deep sea precious coral.

These two types of coral are different.

I.e. when we are snorkelling or scuba diving, we can see the reef coral. These corals are not used in jewellery, and ought to be protected to avoid harm to marine life

Whereas, the precious coral to make jewellery, is often located over 100 m or more below the surface, and fishing precious coral legally would not destroy the environment.



Reef coral is located at approximate 8–20 m below sea level, whereas precious coral, such as "Aka" used in this example, is at depths of around 80–300 m and more.

9.3. Common Coral Species

9.3.1. Bamboo coral

a common coral (5.13) also known as mountain coral. It belongs to the family Isididae (subclass Octocorallia). Bamboo coral has a white calcareous axis with dark keratinous gorgonian nodes; the white axis is commonly died red.

9.3.2. Black coral

a common coral (5.13) belonging to the order Antipatharia (subclass Hexacorallia). Black corals are colonial corals that form non-calcareous skeletons composed of protein and

chitin that are quite flexible, spiny, tree like, unbranched or branched.

9.3.3. Blue coral (*Heliopora coerulea*)

a common coral (5.13) belonging to the family Helioporidae (subclass Octocorallia). It is a reef-building coral, of blue colour, with a rough and porous calcareous skeleton that is difficult to be used for ornaments and which requires to be filled with resin. This species is listed in a CITES Appendix II.

9.3.4. Sponge coral

a common coral (5.13) belonging to the family Melithaeidae of the order Alcyonnacea. Its name is derived from its similar appearance to sponges. Until recently sponge coral was not used for jewellery because it has too many holes. As such, to be used in jewellery today, it heavily relies on stabilisation by being filled with resin or polymer and being polished. In addition to being filled, some material is also dyed, and a small amount of sponge coral has reportedly been “pressed” (crushed up)~~,~~ and mixed with epoxy to be formed into desired shapes. Sponge coral is often sold as natural Congi or “red spongy coral”.

10. Annex E — Washington Convention CITES

The Convention on International Trade in Endangered Species

The Washington Convention — CITES, entered into force in 1975, in response to concerns that many species were becoming endangered because of international trade. Because this trade crosses national borders, international collaboration and cooperation is crucial to ensure this trade is sustainable and controlled and does not threaten or endanger wildlife.
CITES regulates international trade in species by including species on one of three Appendices.

Appendix I — species that cannot be traded internationally for primarily commercial purposes, unless permitted in exceptional circumstances.

Appendix II — species that can be traded internationally for commercial purposes, but within strict regulations, requiring determinations of sustainability and legality.

Appendix III — a species included at the request of a country which then needs the cooperation of other countries to help prevent illegal exploitation.

Coral groups included in the CITES Appendices II

- Black coral (Antipatharia spp.), Appendix II
- Blue coral (*Heliopora coerulea*), Appendix II
- Stony corals (Scleractinia spp.), Appendix II
- Organ-pipe corals (Tubiporidae spp.), Appendix II
- Fire corals (Milleporidae spp.), Appendix II
- Lace corals (Stylasteridae spp.), Appendix II

Coral groups included in the CITES Appendix III

- Red and pink coral (*Corallium elatius, C. japonicum, C. konojoi, C.secundum*), Appendix III, China)

Coral groups which are not included in the CITES Appendices

- Sardinian coral – *Corallium rubrum*
- Garnet coral – *Hemicorallium regale*
- Deep Sea coral – *Hemicorallium laauense*
- Misu coral – *Hemicorallium sulcatum*
- Bamboo coral (Isididae)
- New coral (Not classified)

International regulation

Information for traders, customs and shipping agencies

Commercial name and Scientific name	CITES Appendix	Note and Comment
Mediterranean Sardinian Sciacca (*Corallium rubrum*)	Not included in any CITES Appendix	Can be exported and imported in every country
Garnet (*Hemicorallium regale*)	Not included in any CITES Appendix	For import/export, the use of *Corallium secundum* taxa is recommended
Deep Sea (*Hemicorallium laauense*)	Not included in any CITES Appendix	For import/export, the use of *Corallium secundum* taxa is recommended
Misu Missu Miss (*Hemicorallium sulcatum*)	Not included in any CITES Appendix	For import/export, the use of *Corallium secundum* taxa is recommended
Midway (*Corallium secundum*)	CITES Appendix III	Requested by China But lives only in the Pacific Ocean
Aka Moro Oxblood (*Corallium japonicum*)	CITES Appendix III	Requested by China
Cerasuolo Momo Satsuma (*Corallium elatius*)	CITES Appendix III	Requested by China
White (*Corallium konojoi*)	CITES Appendix III	Requested by China
Angel skin Boké Magai (*Corallium elatius*)	CITES Appendix III	Requested by China

Coral included in Appendix III:

Enacted in 2008, expired in 2013 and extended until 2016, when CITES must pronounce definitively to include Appendix II or exclude it from the Washington Convention.

Fish and wildlife

Any importer in Switzerland and the United States requires a Fish and Wildlife licence to import coral.

11. Annex F — Coral sustainability and regulation for harvesting

See www.sustainablecoral.org

Taiwan's situation:

Strict regulations about coral fishery have been implemented since February 2009. In order to preserve resources, Taiwan adopts a restrictive approach towards coral fishery. It is regulated that only vessels with coral fishery licenses are allowed to undergo such practices.

These vessels must abide by the following rules:

- Vessels must be fitted with Vessel Monitoring Systems which reports the location by the hour;
- Vessels can operate only in five designated regions;
- 220-day operation limit for each year;
- Annual quota of 200 kg for each vessel;
- Fishermen must record and submit fishery logbooks on a daily basis;
- Subject to random inspections.

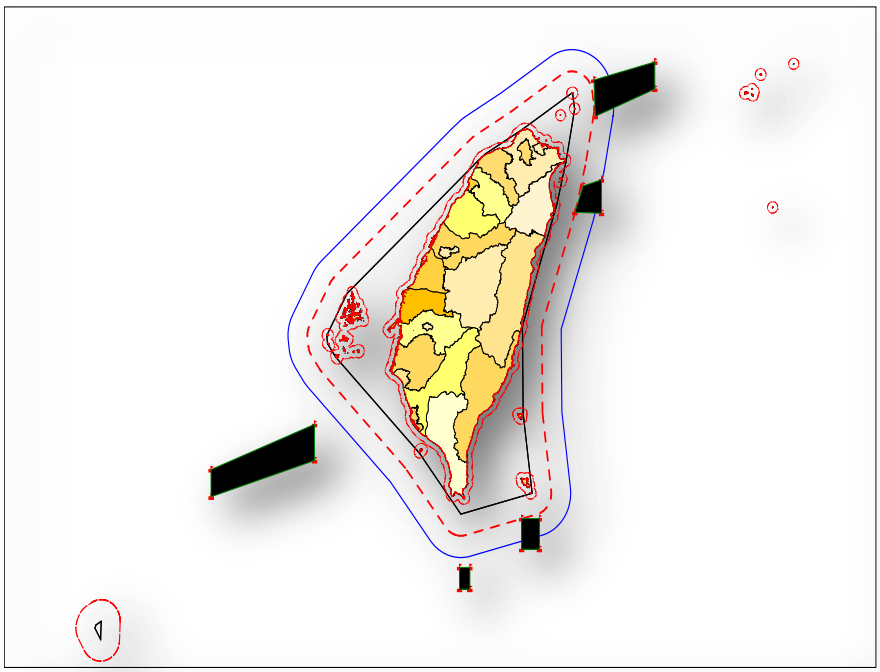


Illustration of the operating areas of coral fishing vessels. The white squares indicate the only 5 designated coral fishing areas wherein the fishing boats can harvest coral.

If the fishermen fail to comply with these regulations, their licenses will be retracted and will never be reissued again. In 2009, there were 96 legitimate coral fishery

licenses. Currently, there are only 60 licenses left.

Coral boats can only park at the Suao or Magoong port. Every boat must notify the government before heading out for coral activities. Upon their return, the customs will record details of the corals harvested.

Japan's situation:

To explore the possibility of a sustainable fishery of Japanese red coral *(Corallium japonicum,* also known as *Paracorallium japonicum*), the morphometry and the population structure of populations in a non-harvested area and in a harvested area were investigated using a remotely operated vehicle (ROV) off Amami Island, Southern Japan, in 2009. In the harvested population, the estimated modal ages are 10 to 20 years. In contrast, the main mode in the non-harvested population extends widely from 20 to 40 years, with a small but distinct secondary mode between 50 and 60 years. Commercially collected specimens are mainly 30–40 years old. The difference in the modes of non-harvested and harvested populations suggests that harvested populations return to the pre-fishing level after at least 10–20 years of a biological rest period. This study indicates a rotational harvest is useful for sustainable management.

In Japan, the prefectural governments control the coral fishery.

The coral fishing regulations of Kochi Prefecture include:

- Only the boats with coral fishing permit are allowed to harvest coral, and new permits are not to be licensed.
- From January to February, and June to July, the period when corals are laying eggs, coral fishing is prohibited.
- After the nets are placed in the deep sea, the boat must stay still and the engine must be turned off in order to prevent the dragging of the nets — minimising the possible damage of the seabed.
- Corals too small, from sizes 3cm to 7cm, must be put back in the sea.
- Fishermen must record their daily activities in a logbook, which are to be submitted to the government.
- Maximum 750kg of living coral harvesting per year.
- For protective reasons, there are only certain areas where boats can harvest coral.

In Kagoshima and Okinawa, the prefectural governments permit only fishing gear which can catch precious corals selectively, such as remotely operated vehicles.

Off Ogasawara Island, the coral fishing prohibited from January to April and June.

Italy and the Mediterranean situation:

The General Fisheries Commission for the Mediterranean (GFCM) is a regional fisheries management organisation (RFMO) established under the provisions of Article XIV of the FAO Constitution. The GFCM initially started its activities as a Council in 1952, when the Agreement for its establishment came into force, and

became a Commission in 1997. The main objective of the GFCM is to promote the development, conservation, rational management and best utilisation of living marine resources in the Mediterranean Sea.

At the request of its members, GFCM has engaged in several actions over the past 4 years to develop a Regional Management Plan for Red Coral. Two recommendations have been issued in 2011 and 2012 as a temporary measure for the conservation of this highly valuable species from an ecological and economical point of view. In 2014 a document with Guidelines for the management of Mediterranean red coral populations in the Mediterranean was adopted by the GFCM members as a transitional measure towards the adoption of a Regional Management Plan which is being under development. Members at the 38th Session agreed that this resource deserve a specific research program to fill important gaps on the knowledge of its actual status in the whole region and proposed a series of priority lines of research in which experts of the area should get involved. Fundraising is needed to launch a comprehensive program to improve the knowledge of red coral in the Mediterranean.

Rec. GFCM/35/2011/2 on the exploitation of red coral in the GFCM competence area

This recommendation prohibits the harvest of red coral at less than 50 m depth until scientific studies indicate otherwise and establishes that the hammer used by scuba divers is the only permitted gear for harvesting. Until 2015, remotely operated vehicles (ROVs) can only be used for scientific purposes provided that they are not equipped with manipulator arms. The recommendation also states that fishers should record and report to national authorities daily catches and fishing effort by area and depths and make this information available to GFCM Secretariat so that it can be submitted to the consideration and advice of the SAC.

Rec. GFCM/36/2012/1 on further measures for the exploitation of red coral in the GFCM area

This recommendation establishes that the legal minimum size for red coral colonies to be harvested, retained on board, transshipped, landed, transferred, stored, sold or displayed or offered for sale as raw product should be at least 7 mm diameter at the trunk, measured within one centimeter from the base of the colony. A margin of tolerance of 10 % in live weight of undersized colonies is authorised and could be revised by the SAC on the basis of relevant studies.
According to this recommendation, GFCM members should submit, no later than 31st January of each year starting with the 2013-harvesting season, data on red coral harvesting by means of electronic forms, which have been developed by the GFCM Secretariat.

The adaptive regional management plan has been developed through several seminars and workshops, and may still be revised depending on various input from experts. It is, however, probable that this plan will be finalised, approved, and enforced during 2016. Then, the GFCM recommendations must be adopted by each Mediterranean country and only stricter measures may be implemented or maintained by a single country.

Hawaii & Midway's situation:

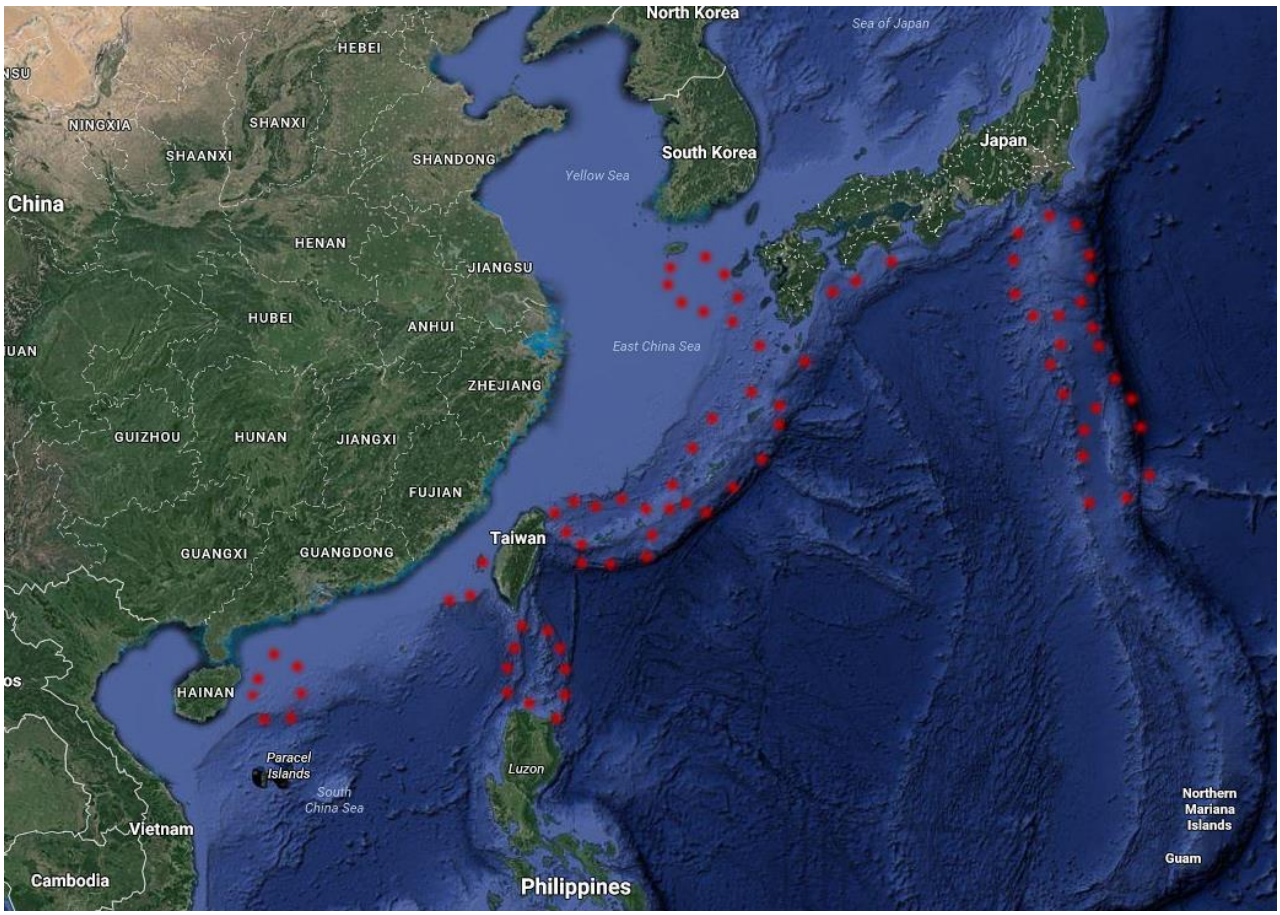
The current situation in Hawaii and Midway is that there has been very little harvesting, especially due to the high costs associated with such fishing. Thus, regulations are weaker than for the aforementioned countries and areas.

12. Annex G — Geographic locations of precious coral harvesting

NOTE — These maps are based on recent data. However, they may or may not correspond to exact locations of specific coral.

South China Sea and Japan Sea

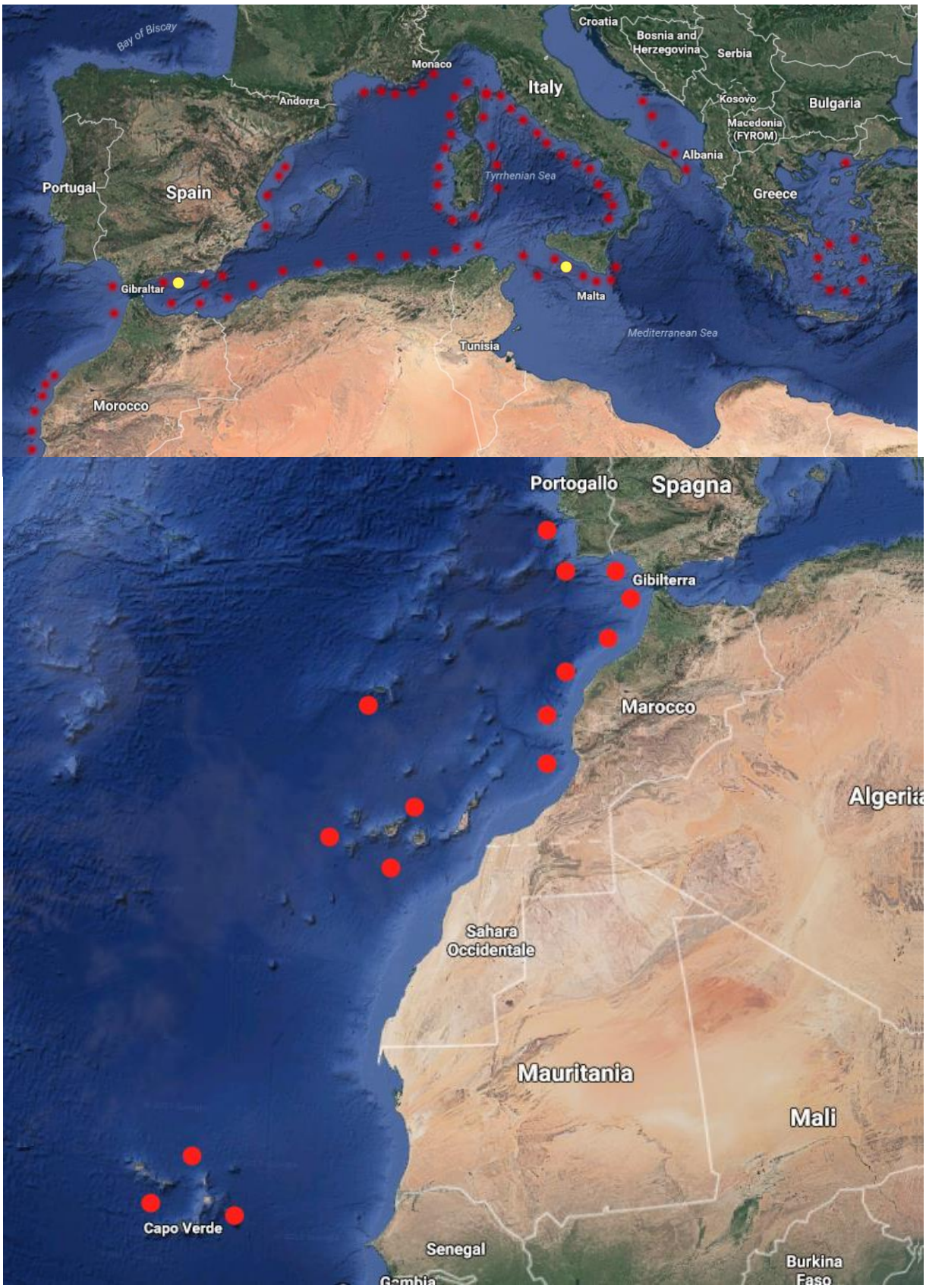
Corallium japonicum	Aka
Pleurocorallium elatius	Momo, Boké, Magai
Pleurocorallium konojoi	Pure White
Hemicorallium sulcatum	Misu



Mediterranean Sea and Atlantic Ocean

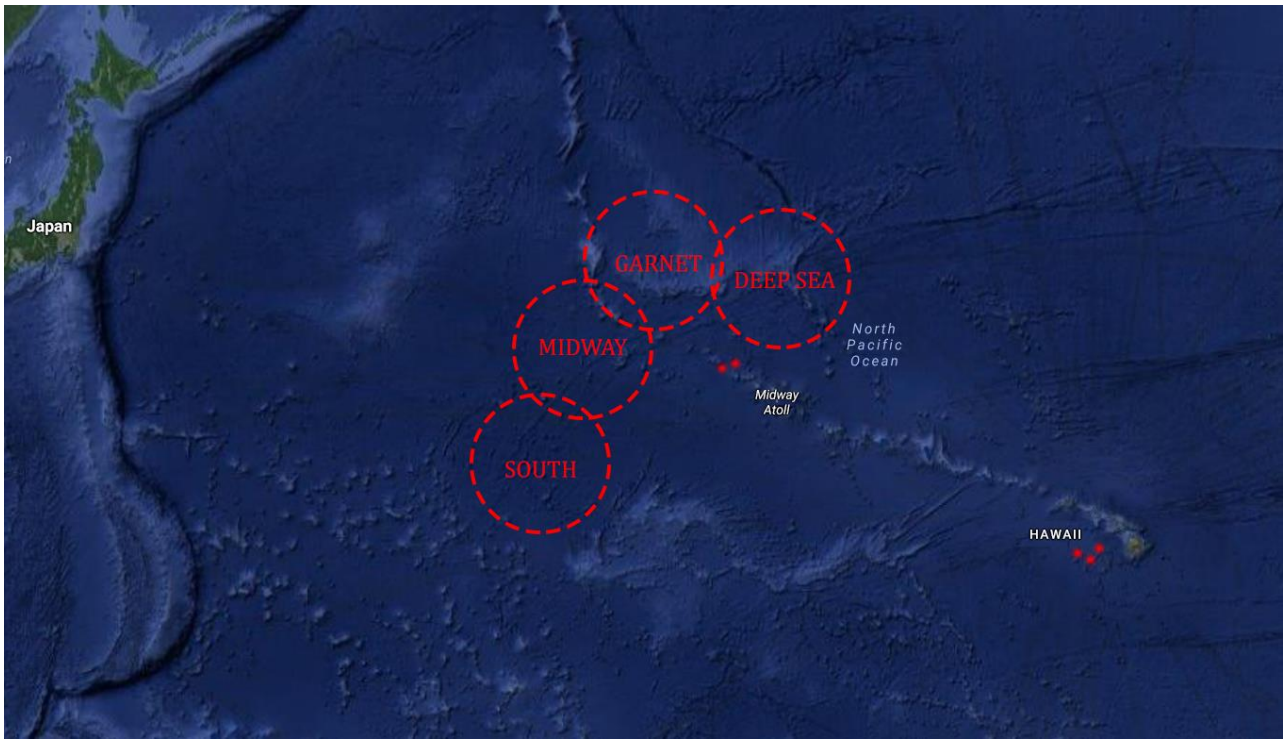
Corallium rubrum Sardinia, Sciacca

● **- Coral Banks** ● **- Dead Coral Deposit (Sciacca and Alboran)**



Pacific Ocean

Pleurocorallium secundum	Rosato, Midway & White/Pink	Hawaii waters
Hemicoralium regale	Garnet	Hawaii and Midway waters
Hemicorallium laauense	Deep Sea	Midway waters



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