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Press Release

Monaco Scientific Centre–Chanel Precious Coral Biology Research Unit

Monaco Scientific Centre and CHANEL have signed a partnership agreement to create a Precious Coral Biology Research Unit. The goal is to develop fundamental research programmes to improve our understanding of some key red coral life processes in order to protect the species.

Mindful of the need to protect the oceans, CHANEL Jewellery is committed to conservation of the Mediterranean red coral used in jewellery and is teaming up with Monaco Scientific Centre to create the Precious Coral Biology Research Unit. Chanel is keen to pursue sustainable development and environmental protection initiatives that are consistent with its business.

Mediterranean red coral is an iconic material which has been used to make jewellery since antiquity. It is distinguished from tropical corals by its characteristic red hue and very slow growth, which is why it is considered to be so valuable.

Having been exploited for a long time, red coral is now a natural treasure of the Mediterranean that must be protected. The scientific partnership between Monaco Scientific Centre and CHANEL is part of this effort.

Launched in 2019 for a six-year period, the scientific programme seeks to gain a better understanding of Mediterranean red coral's growth and colour mechanisms, and to study innovative solutions that will help to conserve the species. The results of the research will be published so that they are available to all interested stakeholders.

IN MORE DEPTH...

Precious corals and red coral

The term 'precious coral' is used to describe marine animals whose skeletons are used in jewellery. The best known and most iconic variety is Mediterranean red coral (*Corallium rubrum*).

Often called 'red gold' or 'blood of Christ', it has a high market value and was historically believed to bring good luck or offer protection against evil spirits. Its benefits continue to be recognised in homeopathy, but it is the coral's use in secular and religious art that make it so valuable.

Red coral was the first organism to bear the name 'coral'. Although it has been used and traded for thousands of years, its true nature remains a mystery.

Long considered as a mineral, plant or animal, it was not until the mid-eighteenth century that Mediterranean red coral definitively acquired the status of an animal, thanks to Dr Jean-André PEYSSONNEL following a fierce debate with René-Antoine FERCHAULT de RÉAUMUR, then Director of the French Royal Academy of Sciences. A century later, the first detailed biological study of red coral was carried out and published by biologist Henri DE LACAZE-DUTHIERS (1864) in 'The natural history of coral'. But red coral still conceals many secrets.

Biom mineralisation: a biological process at work

It is the axial skeleton of the coral, a biomineral, which is used to make jewellery. Pearls are another example of an organic gemstone. Unlike purely mineral precious stones, these gems are the result of a biological process known as Biom mineralisation. It is a field of study in which researchers from Monaco Scientific Centre are among the world's leading experts. Like other biominerals, the skeletons of precious corals are made from an organic matrix embedded in a mineral cement of calcium carbonate (CaCO₃). Among other things, the organic matrix contains carotenoid pigments which give red coral its colour, brilliance and value.

Red coral: a Mediterranean treasure in need of protection

While the species itself does not appear to be in danger of becoming extinct, stocks have been overexploited. Restrictions on fishing are therefore required, since the coral grows slowly (1–3 mm per year).

Red coral is now fished by scuba divers using gas mixtures at depths of between 80 and 150 metres. There is a minimum size limit and some countries have introduced quotas. There are around 350 officially licensed coral fishers in the Mediterranean. To combat the depletion of this resource, there is now an urgent need to develop new methods for managing it and/or alternatives that would allow the jewellery industry to use red coral without drawing on natural stocks. Unfortunately, scientific understanding of the biology of precious corals in general, and red coral in particular, remains limited. It is with this in mind that the agreement between Chanel and Monaco Scientific Centre was signed on 27 September 2019, creating the Precious Coral Biology Research Unit.