

Greek Beaches Among Best for Environmental and Quality Standards



Greece has been declared one of the countries with the most Blue Flag beaches in the world, second only to Spain. Boasting 519 Blue Flag beaches and 15 Blue Flag marinas, the country maintains its place as second among the 47 countries around the world that participate in the international Blue Flag program. The vast majority of the Greece's Blue Flag awards went to beaches in Halkidiki, in northern Greece.

The Blue Flag is a certification by the Foundation for Environmental Education that a beach or marina complies with 32 stringent criteria on water quality, environmental management, environmental education and information, and safety and services. All Blue Flags are awarded for one season at a time. If the criteria are not fulfilled during the season or the conditions change, the Blue Flag may be withdrawn.

California's Going Solar



Following a unanimous vote by the California Energy Commission, the state of California will require all new homes built after January 1, 2010, to be equipped with solar systems for power. The decision, which affirms the state's position as a leader and trendsetter in its clean-energy goals, is part of Governor Jerry Brown's effort to reduce carbon emissions in California by 40% by 2030.

Seagrass Entrepreneurship



Greek student Stavros Tsompanidis is turning dried-up seagrass into iPhone cases, sunglasses and gift boxes. A walk on the beach gave the young entrepreneur the idea to harvest the washed up leaves of the *Posidonia oceanica* plant and use them as a raw material for creating everyday objects. After three years of R&D, his company, PHEE, became the first company worldwide to fully utilize *Posidonia oceanica* leaves in this way. The Patra-based company states that its aim is to stimulate awareness about the collection and commercial use of this raw material and promote environmental and social responsibility throughout its value chain.

DID YOU KNOW Bees

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There are nearly 20,000 known species of bees in seven recognized biological families

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Bees can range in size from just 2 mm to 39 mm

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Bee pollination is important both ecologically and commercially

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The best known bee is the European honey bee, one of the few bee species that produce honey

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The technical term for beekeeping is apiculture, from the Latin word *apis* for bee

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Apiculture has been practiced since at least the time of Ancient Greece and Ancient Egypt

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In addition to their vital role in pollination, honey bees can produce honey, beeswax, royal jelly and propolis

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Honey, which bees produce to feed their larvae, contains no fat or cholesterol, keeps almost forever and even has antiseptic properties if spread on wounds

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A honey bee colony can contain up to 60,000 bees at its peak

IN FOR ROUGH WATERS

In a new study published in the journal *Marine Policy*, scientists from the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) in Yokosuka presented the findings on their research on deep-sea plastic debris. The team completed 5,010 deep sea dives between 1983 and 2017, adding 3,425 items of rubbish to the Deep-sea Debris Database. Their research found plastics to be ubiquitous even at depths exceeding 6,000 meters, with 92% of items being single-use products. The deepest record was a plastic bag at 10,898 meters in the Mariana Trench, the deepest part of the world's oceans. The study's authors stressed that their findings indicate a clear link between daily human activities and remote environments where no direct human activities occur. Other recent studies also support that the extent of human impact on the ocean's is far greater than previously thought. A study published in *Scientific Reports* in March presented findings that the Great Pacific Garbage Dump, a 79,000 tonne mass of plastic debris stretching from California to Hawaii, was between four and sixteen times bigger than previously reported. The patch is already three times the size of France and continues to grow rapidly.



PHOTO CREDIT: NASA, ESA, AND STSCI

NASA Celebrates Hubble Anniversary with Stunning Stellar Nursery Image

Since its launch on April 24, 1990, NASA's Hubble Space Telescope has been delivering breathtaking views of the universe and has made more than 1.5 million observations of over 40,000 space objects. To celebrate Hubble's 28th anniversary, NASA released an image recently captured by the telescope. The image shows the Lagoon Nebula, a vast stellar nursery 55 light-years across that is located 4,000 light years from our planet. Even though the nebula is big and bright enough to be seen with binoculars in a clear night sky, Hubble has delivered an image of stunning unprecedented detail, depicting at its center a monster young star 200,000 times brighter than the Sun.