powdered TiO_2 is prepared by the hydrolysis of TiC_{14}, NH_4OH can be added to enhance precipitation as well as to obtain the anatase (crystallized) form. Calcination of the resultant precipitate leads to the formation of yellowish TiO_2 powder, which exhibits photocatalytic activity in the visible-light region (*1*). The NH_4OH treatment of TiO_2 powder prepared by the hydrolysis of Ti isopropoxide, followed by calcination, also leads to visible-light sensitization. This procedure was named NO_x doping, because NH_4OH would be oxidized to NO_x before it was involved in the formation of TiO_2. There would be no essential difference between N doping and NO_x doping.

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Response

NITROGEN DOPING AND NO_x DOPING OF A compound can be distinguished by the ionization states of N and conditions of the charge neutrality in the solid compound. In addition, the visible-light photocatalysis that Sato reported (*1*) disappears when the sample is heated at 500°C, whereas the samples we observed still exhibit significant visible-light photocatalysis even after annealing in air at 550°C. The detailed investigation of the N states in relation to the preparation processes will be required to clarify this matter.

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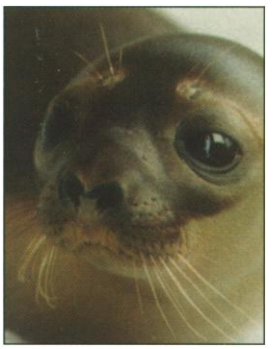
Wandering Hooded Seals

MARINE MAMMAL CONSERVATION AND rehabilitation organizations have been astounded at the number of hooded seals (*Cystophora cristata*) that were stranded or sighted last year down the western and eastern coasts of the North Atlantic. A species of the far north, hooded seals are distributed from Svalbard in the east to the Gulf of St. Lawrence in the west, giving birth in the spring on the drifting heavy pack ice in four main concentrations: near Jan Mayen Island (between Norway, Iceland, and Greenland), off Labrador and northeastern Newfoundland, in the Gulf of St. Lawrence, and in the Davis Strait (between Canada and Greenland) (*1*). They have the shortest weaning period of any mammal, just 4 days, at which time they are on their own.



A female hooded seal, which stranded in Puerto Rico in July 2001.

Hooded seal juveniles in particular have been known to wander fairly large distances off the beaten track (*2*), and individuals have been found far south in previous years (*3–5*); however, never before to the extent witnessed during 2001. By the end of the year, more than 130 individuals, either dead or live stranded, were reported from as far south as the Caribbean island of Antigua in the west and the Canary Islands in the east. The stray records of 2001 constituted about 26% of all stray sightings/strandings

records for this species documented since the early 1900s. Of the 2001 records, 66% were reported in or after July, also an unusual seasonal pattern, as most stray hooded seals arrive in the U.S. New England region during winter (mid-January to April). Individuals of the species were reported from the eastern seaboard of the United States (from Maine to North Carolina), Bermuda, Bahamas, Turks and Caicos islands, Puerto Rico, Anguilla, St. Barthélémy, the United Kingdom, Ireland, Germany, Denmark, France, Spain, and Portugal. The hooded seals found were mostly emaciated and dehydrated, many suffering from heat exhaustion, and in need of immediate medical assistance to secure their survival.

The reasons for these hooded seal wanderings are unknown, but an increasing number of strandings and sightings have been reported in the past 6 years (*4*–*6*), as it has been also observed with other arctic seal species (*7*). Before this, sightings and strandings of these arctic seals were infrequent. The Caribbean Marine Mammal Laboratory at the Universidad Metropolitana in Puerto Rico and the Seal Conservation Society in the United Kingdom are coordinating, in participation with government organizations, research establishments, and rescue and rehabilitation organizations on both sides of the Atlantic, to attempt to determine the cause of this anomaly. Among the factors that are being examined are annual stranding patterns and the pathological condition, genetics, toxicology, and virology of the seals.

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8. We acknowledge the help of all stranding network officials and volunteers along the U.S. eastern seaboard, Europe, and the Caribbean for their dedication to tending to these events and in providing important information to document this anomaly. We thank D. Lavigne and G. Early, whose comments and assistance in this effort have been exceptional. The hooded seal work at the Caribbean Marine Mammal Laboratory, Universidad Metropolitana, is supported by the NSF's Model Institute of Excellence (MIE) Project and through private corporate sponsorship. Further information is available at http://rcv.caribe.net

CORRECTIONS AND CLARIFICATIONS

NEWS OF THE WEEK: "Livestock feed ban preserves drugs' power" by D. Ferber (4 Jan., p. 27). It was mistakenly reported that Abbott Laboratories, the maker of enrofloxacin, was fighting the U.S. Food and Drug Administration (FDA) on a proposed ban on the antibiotic. The FDA has in fact proposed banning enrofloxacin. But Bayer Corporation, not Abbott Laboratories, makes the drug and is fighting the proposed ban. It was also reported that the FDA has proposed banning enrofloxacin from its use in livestock feed. Enrofloxacin is not permitted in livestock feed in the United States; the FDA has proposed banning it from use in poultry drinking water.

BOOKS *ET AL.*: "A scientific Kokopelli" by B. Edgar (7 Dec., p. 2103). In the second paragraph, Francis Crick instead of Francois Jacob was mistakenly credited as one of the three scientists (the other two being Sydney Brenner and Mathew Meselson) who proved the existence of messenger RNA.