The trip from the mainland to the Falklands kept Darwin's thoughts on questions of geographical distribution and species. So, too, he pondered differences within the Falklands. Later, having visited the Galápagos and seen subtle variations of tortoise and bird, Darwin commented in a notebook: "The only fact of a similar kind of which I am aware is the constant asserted difference between the wolf-like Fox of East and West Falklands Isds.—If there is the slightest foundation for these remarks, the Zoology of Archipelagos will be well worth examining; for such facts would undermine the stability of species."

Observations from the Falklands also in time buttressed Darwin's view of evolution. After reading Malthus on population in 1838 and deciding that population pressure was the driving force of natural selection, Darwin found his Falklands notes fitting quite nicely into the evolutionary thesis. He wrote in the second edition (1845) of his *Journal of Researches* of the prolific Falkland sea slug, which lays 600,000 eggs but produces only a few adults. Hinting at the selective powers of a harsh environment, Darwin noted in italics that "No fallacy is more common with naturalists, than that the numbers of an individual species depend on its powers of propagation."

During his stay in the Falklands, Darwin saw not only varieties of fox but also differing breeds of men. "On Friday a sealing vessel arrived commanded by Capt. Lowe; a notorious & singular man, who has frequented these seas for many years & been the terror to all small vessels. It is commonly said that a Sealer, Slaver & Pirate are all of a trade: they all certainly require bold energetic men. . . . In their manner, habits &c. I should think these men strikingly resemble the old Buccaneers."

Darwin and the captain of the *Beagle*, Robert Fitzroy, worried about the fate of the few British citizens in such a bleak and turbulent land. They worried with reason.

According to Frank, up to 30 whalers and sealing ships were usually hovering about the islands or lying at anchor, the crews armed with clubs and rifles. In addition to the gauchos on the moorlands, there were about a dozen in the settlement. At Port Louis they gambled, quarreled, and fought each other with long knives. Fitzroy characterized them as "characters fitter for the pencil of an artist than for the quiet hearth of an industrious settler."

The *Beagle* left the Falklands in April 1833 and returned a year later. The voyagers found their worst fears confirmed.

Endangered Species Act Reauthorized

After months of perilous navigation the Endangered Species Act is headed for a safe port in the form of a 3-year authorization from Congress. Both houses have passed versions of the act which appear to be satisfactory to all parties, having rebuffed efforts by Interior Secretary James Watt to limit reauthorization to 1 year.

The bills, now in conference, contain numerous amendments designed to speed up the listing process. The Senate bill, for which environment subcommittee chairman John Chafee (R–R.I.) managed to engineer unanimous Senate confirmation, would require that the Interior Secretary take no more than 12 months to decide whether or not a proposed species should be listed as endangered or threatened. It also explicitly authorizes citizen suits to bring about compliance. Environmentalists regard this as a major improvement that could prevent the open-ended delays that have plagued the listing process since Watt took office.

The bill adds flexibility to the controversial provisions on designation of critical habitat by specifying that it should be designated concurrently with species listings "to the maximum extent prudent and determinable." This means a species could be listed even when insufficient data are available to determine the habitat. The House bill also contains this change, as well as the 1-year deadline. In addition, the House bill says determinations on whether species are endangered should be made solely on a biological basis. This represents a staving off of pressures by development interests to insert economic considerations into evaluation of a species' status.

Another significant amendment in the Senate version would prohibit removal of endangered and threatened plants from federal lands. Currently, listed plants are only protected by state laws.

Pleasing to industry groups are measures, contained in both bills, that would streamline the exemption process which was created so the Tennessee Valley Authority could go ahead with the Tellico Dam despite the snail darter. The Senate measure would shorten the maximum time allowed from 360 to 200 days; the House to 170 days.

Both bills would restore money for cooperative activities with states that the Administration wanted eliminated, and would continue authorizations at the current level of $39 million a year.—***Constance Holden***

Society Formed to Study Anomalies

The first meeting of the Society for Scientific Exploration was held this month at the University of Maryland, where about 35 scientists gathered to hear what's going on with UFO's, psychokinesis, and other assorted "anomalies."

"Heretical science" is what Peter Sturrock of Stanford University's Institute for Plasma Research called the field. The assumption of the group was that it is not getting a fair shake because the phenomena appear to violate both prevailing beliefs and the prevailing power structure in science. Ron Westrum, a sociologist from Eastern Michigan University, compared most scientists' attitudes with those who denied the existence of meteorites until a spectacular fall in France in 1790, which eventually compelled scientific acceptance of that phenomenon. The implication was that today's scientists are unlikely to consider the possibility that an unknown class of flying objects exists until a fleet of UFO's lands on the roof at a physicists' meeting.

Nothing in the way of new research was presented at the meeting, which was mostly devoted to UFO's. All in all, there did not appear to be much for researchers of anomalies to get their teeth into.

Some of the topics discussed, such as ball lightning and animal navigation, are poorly understood but science does not dispute their existence or eschew them as fields of study. Other topics are totally unsusceptible to research since there is zero evidence to work with—such as extraterrestrial intelligence and reincarnation. Others, such as UFO's and strange beasts of the Bigfoot variety (grouped under the heading of "cryptozoology")

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leave such pitiful shreds of evidence that study seems futile.

Despite these drawbacks, the new society has attracted about 130 "founding members," all of whom hold professorial appointments at major universities. A new journal is planned, joining two in the field now—the *Zetetic Scholar* and the *Skeptical Inquirer.* So far the membership is heavily weighted toward men in the space sciences, followed by physicists and psychologists.—***Constance Holden***

USDA Official Defends Loyalty Checks

The fact that the Administration has stopped making loyalty checks on peer reviewers at the Department of Agriculture (USDA) does not mean it considers the practice wrong. John Schrote, deputy assistant secretary of USDA, recently defended the policy of favoring scientists who are "philosophically compatible" with President Reagan's outlook. Schrote is now in the process of moving from the USDA to the White House, where he will serve in the presidential appointments review office.

In a telephone interview on 14 June, Schrote endorsed the views he expressed earlier to an agricultural scientist, saying that one of the Administration's goals is to break up incestuous old-boy networks in federal agencies. Ohio entomologist Robert Treece had written to the USDA to object to the mixing of science and politics. He received a reply from Schrote dated 24 May, which said in part:

"Obviously, those in the scientific community would like to have complete freedom to discharge and distribute funds among their peers as they see fit. However, Mr. Treece, we had an election in which the electorate strongly suggested they did not want business to continue as it had. Therefore, to make sure the voters' and taxpayers' views are considered and the 'good old boy network' broken up, we are selecting people who embrace the President's values and agendas. To suggest that only those scientists who are recognized by the present scientific establishment can make those determinations is the height of elitism. We reject that notion and we believe this Administration should be responsible to the taxpayers, not a peer review committee."

Schrote told *Science* that he meant these comments to apply to basic research as well as to policy review groups. "To say that [these committees] were not politicized in the past is just baloney," he added, mentioning that the director of the USDA's basic research program under the Carter Administration came from Georgia, Carter's home state. The peer review committees ought to be balanced and bipartisan, Schrote said, but "If I have anything to say about it, they're going to have a similar value basis"—similar to the Administration's.

Schrote also claimed that the method of peer review at the USDA was biased in favor of the large, prestigious universities. "The whole process has been rather smelly in the past," he said. The Administration's emphasis on loyalty has not affected the quality of science being sponsored, Schrote insisted, because all the peer reviewers have been of the highest caliber. He would like to see other agencies like the National Science Foundation and the National Institutes of Health challenge the scientific status quo as the USDA has. But, in his new position at the White House, he is unlikely to be involved in these matters.—***Eliot Marshall***

Competition Increasing for Use of Outer Space

Over the next decade, the United States will face increasing competition from Europe and Japan for commercial exploitation of outer space, states a recent report by the congressional Office of Technology Assessment (OTA). Foreign initiatives in the areas of satellite communications, remote sensing, and commercial production in outer space may soon challenge the longtime U.S. technical lead.

The report, prepared with the advice of a panel of officials from the U.S. aerospace industry and some aeronautical scientists, points to imminent competition from Italy and Japan, which are developing satellites capable of operating in a new and potentially valuable frequency range (30/20 gigahertz). Germany is working aggressively on techniques for producing commercial products in the vacuum of space, and France is set to launch a series of high-resolution remote sensing satellites, beginning in 1984. Already, the European consortium known as Arianespace has drained satellite-launching business away from the space shuttle.

The report, which recommends a vigorous U.S. response to this competition, was completed as the Reagan Administration neared the end of its own official review of U.S. space policy. The results of the review are scheduled for release sometime during the summer.—***R. Jeffrey Smith***

New Award to Supplement Nobels

Scientists in fields that were slighted by Alfred Nobel now will have their own chance to have an award conferred by the king of Sweden. Holger Crafoord, a wealthy Swedish industrialist who made his fortune in pulp and paper products and in artificial kidneys, has established the Holger and Anna-Greta Crafoord Prizes for basic research in several fields neglected by Nobel. In addition, since Crafoord, who recently died, suffered from arthritis, there will be special awards for arthritis research.

The Crafoord Awards will be given in one subject each year and the subjects will rotate in the following sequence: mathematics, astronomy, bioscience, geoscience, bioscience, geoscience. The recipients will be chosen by the Royal Swedish Academy of Sciences and the award will be 800,000 Swedish crowns (about $135,000). Half the award will go to the scientists cited by the Academy and half will be used to support Swedish research in the same field.

The first Crafoord Award is in mathematics and it will be given to Louis Nirenberg of New York University's Courant Institute and to V. I. Arnold of Moscow for their work in nonlinear partial differential equations. The two mathematicians will receive their awards on 29 September. A symposium on nonlinear partial differential equations will be held in connection with the award.—***Gina Kolata***