

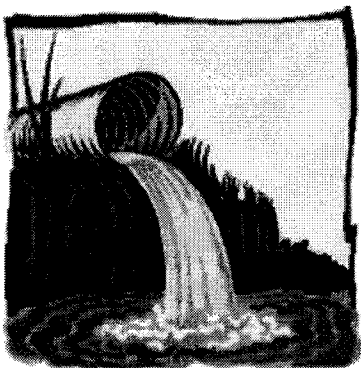
Spokesmen for the Forest Service and for Mark Rey, agriculture undersecretary for natural resources and the environment, said they could not comment on pending litigation.

Sources: Jeff Barnard, *AP/San Francisco Chronicle*, 6/18/04; and *Greenwire*, 6/18/04

Sewage Impacts on Sex Change in Fish

Traces of female contraceptive pills in sewage discharges are changing the gender of male fish in English rivers. A recent United Kingdom Environment Agency (UKEA) survey issued in early July revealed a serious threat to fish stocks because the gender changes are more widespread than previously thought. More than a third of 1,500 male fish sampled in 42 English rivers showed female characteristics, according to the 20-year survey. Nick Cartwright, the chemicals policy adviser for UKEA, said the effects have now been observed in coarse fish, and young fish are particularly susceptible, making them less fertile, which has serious implications for future fish populations. The feminizing effects are directly related to exposure to treated sewage effluent.

At issue is ethinyloestradiol, which is found in contraceptive pills and acts as an endocrine disrupter in male fish, particularly young fish. The synthetic hormone is about 1,000 times stronger than natural estrogen and lasts up to 90 days in water, or 20 times longer than natural estrogen. The number of fish affected and the severity of the effects are also related to the proportion of sewage effluent in the river. The most



significant substances from domestic sewage effluents are the natural steroid hormones oestradiol and oestrone, and the synthetic hormone ethinyloestradiol, all excreted from women naturally or as a result of taking the contraceptive pill.

Histological analysis of the carp-like roach revealed that 218 male roach (a third of all "males") were intersex, and intersex roach were present at 44 (86%) of the 51 sites within all 5 Regions sampled. One hundred seventeen of the intersex fish had abnormal reproductive ducts, and most of these had only a single sperm duct together with an oviduct in one or both of the gonads. In no fish was the male sperm duct blocked or absent, but in 23 fish one or both gonads contained an additional sperm duct, as well as an oviduct. There were 140 fish in which oocytes were found in the testes (ovotestis) and 39 fish in which both abnormal reproductive ducts and ovotestis occurred.

Prevalence of intersex varied between sites (from 100% to 0%). There was also a large variation in the severity of the condition at these sites. Both the proportion of "male" fish with ovotestis and the severity of the condition increased with age. Male fish with more than moderate changes in their sexual organs are less able to reproduce, with potentially serious implications for fish populations

This phenomenon is being noted worldwide, but scientists from the UKEA, Exeter and Brunel universities and elsewhere in the United Kingdom are leading the way in the research. The results of this work were discussed at an international workshop at Exeter University in early July. Attending were renowned scientists representing over 60 European research laboratories as part of a series of initiatives. As a result of the study, the UKEA is asking sewage treatment plants in England to study ways to remove traces of estrogen hormones from contraceptive pills before releasing treated wastewater, and is proposing two pilot plants to study removal techniques.

The appearance of "intersex" fish first came to the attention of researchers more than 10 years ago after a study of roach in the river Lea in Hertfordshire, a tributary of the Thames. A study of fish in eight rivers near large sewage-treatment works linked the intersex phenomenon with pollution, which was confirmed by laboratory studies. "This latest survey reinforces the need to look at cost-effective ways of minimizing endocrine-disrupting substances," said Andrew Skinner, director of environmental protection at the UKEA.

Sources: Anna Hilton, *United Kingdom Environment Agency Survey*, 7/9/04; Charles Clover, *London Telegraph*, 7/10/04; Paul Brown, *London Guardian*, 7/10/04;

Steve Conner, *London Independent*, 7/10/04; and *Greenwire*, 7/12/04

Lawmakers Urged to Respect Science, Avoid Politicization of Data

One of the few academics to serve in Congress called on federal lawmakers to speak out against what he characterized as the misuse of research in environmental regulation and other areas of public policy. Rep. Brian Baird (D/WA), a three-term lawmaker, said, scientists must fight the politicization of science because adequate public debate "and the underpinnings of the federal decision making process itself" are at stake.

Baird, a clinical psychologist and a Pacific Lutheran University administrator, made his comments at a Washington, D.C., conference hosted by the *Center for Science in the Public Interest*, where academics, environmental groups and industry officials debated how scientific research is used to protect the public from threats ranging from pollution to prescription drugs.

Virtually all types of research produced by federal agencies are susceptible to unfair politicization by members of the executive branch and Congress who seek to limit what types of questions are asked and what outcomes are reached. Elected officials are also prone to constrain certain research methods and cut funding for controversial research, Baird said. Research on controversial topics or that using controversial methods must be funded, according to Baird. He urged the audience to imagine how the world would be different without the science produced by Galileo, who was initially ridiculed for suggesting that the Earth was round rather than flat. Ensuring a science that produces "real results" not only requires the sacrifice of hard work, but also requires the risk of defending it against political attacks, Baird said.

Another presenter, Jim Tozzi, former White House deputy director of information and regulatory affairs, praised Baird for an "excellent speech," but said scientists should avoid involving themselves too much in the political process. "A lot of scientists go into their business because they don't want to be street fighters," said Tozzi, who now leads the *Center for Regulatory Effectiveness*, which lobbies the White House and federal agencies on behalf of industry clients. Tozzi's primary aim was to show how the 2001 Data Quality Act, a

law trumpeted by sound science advocates, has been implemented. Tozzi told conference participants that the law has made the process of lobbying the executive branch on regulations more transparent and open to public scrutiny.

But critics like Sean Moulton, an analyst at the nonprofit group *OMB Watch*, said the law has been used by industry to slow the implementation of important regulations. "There are still problems with transparency and accuracy of the data being given to the administration," Moulton said. Eric



Shaeffer of the *Environmental Integrity Project* said at a separate panel discussion that the executive branch regularly issues environmental and public health rules without spelling out all the benefits provided by those rules. "It's something we probably need to change in law," he said.

Marty Coyne, *Greenwire*, 7/13/04

Endangered Species, Habitats, and Costs

The U.S. Fish and Wildlife Service (FWS) was dealt a heavy blow in early June when a district court judge ruled it illegal for the agency to ignore citizen petitions to list a species under the Endangered Species Act (ESA). FWS has been operating under "Petition Management Guidance" that allows it to ignore citizen listing petitions if the species at issue is already on the agency's candidate list. The ruling by Judge Reggie Walton of the U.S. District Court for the District of Columbia, said FWS must stop following that guidance provision immediately.

FWS maintains that the candidate list is used to identify species that warrant listing, but for which the agency lacks sufficient money, staff or time to protect. The candidate list also helps alert local governments and landowners of species that face extinction and that should be considered when permitting new development or

drafting new land-use plans. Plaintiffs in the case, including the *American Lands Alliance*, the *Larch Co.* and *Sinapu*, say species on the candidate list can remain stuck there for decades while their habitat is destroyed and their numbers dwindle to the brink of extinction.

Under the disputed petition guidance, FWS often responds to petitions by telling filers that the species in question is already on the candidate list, an answer that rarely satisfies petitioners but that has been interpreted as meeting ESA rules requiring that such petitions be answered within 90 days. FWS also often advises whether a petition contains sufficient information on a species' condition to warrant further review. If sufficient information is provided by petitioners, FWS is required to make a listing decision within 12 months under the ESA.

FWS and Justice Department officials did not comment on the issue, but Judge Walton's ruling affirms an earlier decision from the D.C. District Court, which last year found that the Petition Management Guidance violates ESA. But rather than change or revoke the guidance, the agency instead asked the court to reconsider. The court refused and issued the permanent injunction against its use nationwide.

The initial lawsuit dealt specifically with the Gunnison sage grouse of Colorado and Utah, which was placed on the candidate list in 2000. But the court struck down the agency's reasoning on the grouse and extended its order to nearly 300 additional species awaiting formal action by the FWS. "The service has created a black hole into which it's dropped [279] species, none of which will ever see the light of day without the success of a lawsuit like the sage grouse lawsuit," said Jay Tutchton of the University of Denver *Environmental Law Clinic*.

The ruling could have broad significance for future listing decisions. In May, the FWS received a mammoth 1,000-page petition from the *Center for Biological Diversity* to list 225 of the species on the candidate list. The legal action is more broadly aimed at spurring the FWS to request funding to deal with all imperiled species in the U.S. Many environmentalists argue that the FWS's budget crisis is self-engineered and that if the agency really wanted to protect all deserving species, it would request enough money from Congress to at least list those plants and animals that it concedes worthy of protection.

The candidate list's 229 species are not the only ones that the FWS has acknowledged merit ESA protection. Another 25 to 30 species have been deemed "warranted but precluded" by other higher priorities given the agency's limited budget. Additionally, an analysis (released in late June) by the National Wildlife Federation (NWF) accuses the Bush administration of increasingly using lopsided economic calculations to reduce by approximately half the amount of acreage offered as critical habitat for endangered species.

The NWF study comes as Congress looks toward possible ESA reforms, including revisions to how the FWS accounts for the costs of actions like critical habitat designations that are aimed at helping recover species. Critical habitat is one of many ESA provisions that continually comes under fire from both environmentalists and industry groups who say the law is not being followed. From 2001 to 2003, federal wildlife biologists proposed almost 83 million acres of land for critical habitat designations. But federal records show the government reduced the size of those designations by 42 million acres in its approval of the plans, according to the NWF report. Many of those acreage cuts have been justified based on cost-benefit analyses that show species preservation would come with major economic downsides.

Such cost-benefit analyses are required by ESA, but environmentalists say the studies have been wrongly interpreted by the Bush administration to justify slashing critical habitat acreage for species. From 2001 to 2003, acreage reductions, based on findings from economic analyses, have risen from less than 1% to 69%, the NWF report states. Interior Department spokesman Hugh Vickery said that while it is true FWS has excluded large areas from critical habitat over the past three years, such reductions are allowed under the ESA. "The viewpoint of the department is that critical habitat offers very little if any additional conservation benefit to species, so these exclusions are not harming the effort to recover these species," Vickery said.

FWS maintains that over 30 years of ESA implementation, biologists have seen little or no additional protection benefit for species from critical habitat designations. In its standard preamble for critical habitat proposals, FWS says the provision has evolved into "a process that provides little real conservation benefit, is driven-by