

**IN DECLINE**

The plight of the whooping crane helped push Congress to pass legislation to protect endangered species.



# PESTICIDES AND ENDANGERED SPECIES

**ACS MEETING NEWS:** Litigation hobbles already beleaguered federal agencies

BRITT E. ERICKSON, C&EN WASHINGTON

**THE ENVIRONMENTAL** Protection Agency has faced a continuous stream of lawsuits since the 1990s for failing to consult with the Fish & Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) about the potential effects of pesticides on endangered species. Although chemical manufacturers, growers, and environmental groups agree that the process for protecting endangered species from pesticides is broken, how to fix it is not clear.

To get input from all sectors, EPA and other government officials gathered with stakeholders in Denver last month at a symposium sponsored by the American Chemical Society's Division of Agrochemicals. The symposium provided a unique opportunity for lawyers, policymakers, and scientists to begin to address a decades-old problem.

At the root of the matter is EPA's failure to incorporate endangered species consultations into safety reviews for pesticides that are already on the market. EPA is required to evaluate such pesticides at least once every 15 years. What makes it so challenging is that EPA currently has more than 1,000 pesticide active ingredients scheduled for reevaluation over the next 10 years, and that could mean thousands of endangered species consultations.

Under the Endangered Species Act (ESA), EPA must consult with the services if an action it takes, such as registering a pesticide, may affect an endangered species or its critical habitat. FWS has jurisdiction over terrestrial and freshwater species, and NMFS, which is part of the National Oceanic & Atmospheric Administration, has responsibility for marine species.

But if EPA initiates an endangered species consultation for each pesticide that comes up for reevaluation, "the services don't have the capacity to review this flood of registrations quick enough," Ya-Wei (Jake) Li, an attorney with the environmental group Defenders of Wildlife, pointed out at the symposium.

Once EPA initiates an endangered species consultation, the services are required to issue a final document, called a biological opinion, within 135 days. That document often spans more than 1,000 pages and includes scientific information such as estimates of harm that may occur to a particular species or habitat, and reasonable measures to minimize the impacts.

"A 1,000-page biological opinion takes a while to do. Congress said it wanted this done expeditiously," noted environmental

lobbyist David B. Weinberg of the Washington, D.C.-based law firm Wiley Rein LLP.

Federal agencies have not been able to keep up with their obligations under ESA, and the entire process has gotten bogged down in litigation. EPA has been sued numerous times for failing to initiate endangered species consultations with FWS and NMFS, and the services have been sued for not responding in a timely manner.

"All of the consultations that we have been engaged in since 2006 have been related to either litigation against NMFS or against EPA" for not complying with ESA with respect to the registration of certain pesticides, said Angela Somma, chief of the endangered species division at NMFS.

**FOR THE PAST** decade, NMFS has been focusing most of its attention on consultations related to the effects of 37 pesticides on Pacific salmonids, Somma noted. The consultations were initiated by EPA in 2004 as part of a court settlement in the case *Washington Toxics Coalition v. EPA*. NMFS was sued for not responding quickly enough to EPA's request and eventually entered into a settlement agreement that requires it to issue biological opinions for the 37 pesticides in five separate batches. The first batch was issued in 2008, and the final batch is due in early 2012, according to Somma.

So far, litigation related to pesticides and endangered species has centered on procedural issues. "All of the lawsuits have been based on process, not harm. There has been no claim, no evidence, and no ruling about harm" to endangered species or their habitats, emphasized Heather Hansen of Growers for ESA Transparency, a group of western grower organizations. "Water monitoring that has been done by state departments of agriculture and the U.S. Geological Survey for the most part shows detections far below levels of concern," she noted.

Hansen emphasized that court-ordered buffer zones, where certain pesticides cannot be used, have economic impacts on growers and reduce the amount of land that can be used to grow food. She echoed many others at the symposium, stressing that the process for protecting endangered species from pesticides isn't working.

The process is broken because "we are not working together," said Bernalyn McGaughey, president and chief executive officer of the consulting firm Compliance Services International. She pointed to "unpredictable delays in interagency interactions" and emphasized the impacts

such delays have on private activities. "We need clear policy and interagency coordination," she said, or litigation will continue to proliferate. Such litigation "overwhelms agency resources that could otherwise be spent on scientific evaluation and mitigation development," she stressed.

Officials from EPA, the two services, and the Department of Agriculture agreed at the ACS meeting to work together to build endangered species consultations into future pesticide reevaluations. "We need to be considering the effects on endangered species at every step in the process," said Donald Brady, director of the Environmental Fate & Effects Division in EPA's pesticide office. "We need to be thinking about it in problem formulation, in the risk assessment process, and in the risk mitigation process."

Sheryl H. Kunickis, director of USDA's Office of Pest Management Policy, pointed out that USDA has information about agriculture production practices and pesticide usage data. Those data could go a long way toward decreasing uncertainty in EPA's assessments, she said.

EPA should include accurate pesticide usage data down to the county level, advocated Daniel A. Botts, vice president of industry resources at the Florida Fruit & Vegetable Association. Those data are not collected at this point, he noted. Botts spoke on behalf of the Minor Crop Farmer Alliance, a group of specialty crop growers concerned about EPA's pesticide reevaluation program.

Botts also suggested that federal agencies decide how and when to engage growers in data collection, because it is the growers who know what is in their pesticide tank mixtures and when their pesticides are applied. "Sprays are not based on the calendar, but on biological monitoring and models that predict proper spray timing for specific pests and local weather conditions," Kunickis noted.

Some state agriculture departments also collect pesticide usage data and crop-specific information that could help inform federal risk assessments, but such data are often ignored or not asked for, said Jessica Johnson, an environmental scientist with the North Dakota Department of

Agriculture. She pointed to geographic information system and land-use data, as well as local surface water monitoring data for pesticides and their degradates, all of which federal agencies could be using in their assessments, but they aren't.

Current biological opinions make assumptions that pesticides are applied at maximum label rates and that all areas are treated, all of the time, said Larry Wilhoit, a scientist with California's Department of Pesticide Regulation. With actual data on pesticide use, including actual rates, specific areas treated, and spraying dates, more realistic assumptions can be made, he said.

**ONE OF THE PROBLEMS**, however, is that there is no agreement on adopting data that are provided by states, pesticide registrants, or growers, McGaughey pointed out. As a result, EPA and other federal agencies have asked the National Academy of Sciences (NAS) to examine what constitutes the best available science.

Government officials have high expectations for the NAS study, which is expected to wrap up in about 18 months. "We are looking very much forward to engaging with the NAS on some of the basic science questions," EPA's Brady said. EPA hopes to glean information about how to deal with sublethal and cumulative effects of pesticides, effects of pesticide mixtures, and the use of geospatial tools, monitoring, and modeling data, Brady noted.

Stakeholders at the symposium were generally supportive of having NAS review the science, but some people were concerned that EPA will wait until the study is complete to take action. "There have been 20 years of noncompliance," stressed Collette L. Adkins Giese, an attorney with the environmental group Center for Biological Diversity. Now, "we are asked to wait longer," she said, pointing out the lack of restrictions on the use of pesticides in sensitive habitats of endangered species.

In the meantime, litigation will likely continue. "We are hoping through national pesticide litigation that we will be successful in getting measures to protect endangered species," Adkins Giese said. Earlier this year, the Center for Biological Diversity filed what is being called a mega lawsuit against EPA for not complying with ESA. The suit involves 381 pesticides and 212 species. "Until EPA and the services get their programs into compliance with ESA," Adkins Giese warned, "we will have to continue to deal with litigation." ■

## LEGAL ACTION

### Lawsuits Force EPA Reaction

Several lawsuits brought against the Environmental Protection Agency under the Endangered Species Act are shaping the way the agency evaluates the impact of pesticide active ingredients on endangered species.

(NMFS) on 37 of the 54 pesticides for impact on Pacific salmonid fluvial zones are established around water bodies in California, Oregon and Washington.

2007 Northwest Coalition for Alternatives to Pesticides sues NMFS for failing to complete consultations on 37 pesticides in a timely manner.

2008-12 NMFS issues consultations for 37 pesticides in five batches.

Center for Biological Diversity v. EPA

2002 Center for Biological Diversity (CBD) sues EPA over failure to assess pesticide impacts on the California red-legged frog



California red-legged frog.

2006 EPA agrees to interim restrictions on applying 66 pesticides throughout California.

2007 CBD sues EPA over failure to assess impacts of 77 pesticides on 11 San Francisco Bay species.

2011 CBD files mega lawsuit against EPA involving 381 pesticides and 212 endangered species.

2011 CBD files notice of intent to sue Fish & Wildlife Service and EPA over failure to complete consultation on the California red-legged frog.

Washington Toxics Coalition v. EPA

2002 Washington Toxics Coalition sues EPA over failure to assess effects of 54 pesticides on Pacific salmonids.

2004 EPA initiates consultations with National Marine Fisheries Service

SHUTTERSTOCK (BOTH)