

Pesticides and Endangered Wildlife



The Impact of
Congressman Pombo's
Anti-Endangered
Species Bill (HR3824)
on the Bald Eagle and
Other Vulnerable
Wildlife





Introduction

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In 1973, Congress passed the Endangered Species Act, one of our nation's most important and successful conservation laws. For more than 30 years, the Endangered Species Act has protected some of our most treasured wildlife, including the bald eagle, gray wolf, peregrine falcon, black-footed ferret and California condor. Not only are these creatures on the road to recovery, but many others are as well. In fact, only nine of the 1,800 species listed under the act have been declared extinct—a true conservation success story.

But in September 2005, the House of Representatives passed a bill that would undermine our nation's 30-year commitment to the conservation and recovery of endangered and threatened plants and animals. The bill (HR 3824), authored by Congressman Richard Pombo (R-CA), would dismantle the protections provided by the Endangered Species Act in the following ways:

- eliminate current protection for habitat without providing adequate alternative protection for habitat necessary for species recovery;
- exempt all pesticide decisions from compliance with the Endangered Species Act for at least the next five years, meaning pesticides could be used no matter how much they might harm wildlife;
- cut wildlife experts out of the loop when determining whether new projects would harm endangered animals and plants;
- set a dangerous precedent by requiring taxpayers to pay developers not to kill or injure endangered species.

This report is an analysis of the pesticide provision of HR 3824 and its potential impact on our national symbol, the bald eagle, and other imperiled wildlife.

The Near-Extinction of Our National Symbol

More than 40 years ago, the bald eagle was teetering on the brink of extinction. A mere 417 nesting pairs were left in the lower 48 states in 1963—down from an estimated population of 100,000 bald eagles when Europeans first arrived on the continent. The future looked bleak.

The main killer of bald eagles was dichloro-diphenyl-trichloroethane, better known as DDT. The pesticide was used widely along coasts and wetlands to control mosquitoes. Later it was used as a general insecticide on crops, forests, around homes and gardens, and for industrial and commercial purposes (www.epa.gov/history/topics/ddt/01.htm). DDT was considered an extremely effective pesticide because it did not break down quickly after application. This meant that the chemical would stay around and continue to be effective for months. Unfortunately, this persistence made it deadly for more than the targeted pest species: DDT would build up in the fat of any animal that contacted it, and enormous concentrations ended up in fish and birds that ate contaminated fish, such as bald eagles, osprey, pelicans and peregrine falcons.

The pesticide prevented normal eggshell formation, resulting in thin-shelled eggs that were easily broken by the weight of the nesting birds. Nesting failures were widespread, and in some areas successful reproduction virtually ceased. Ultimately, DDT contributed to the

near-extinction of the bald eagle and several other bird species.

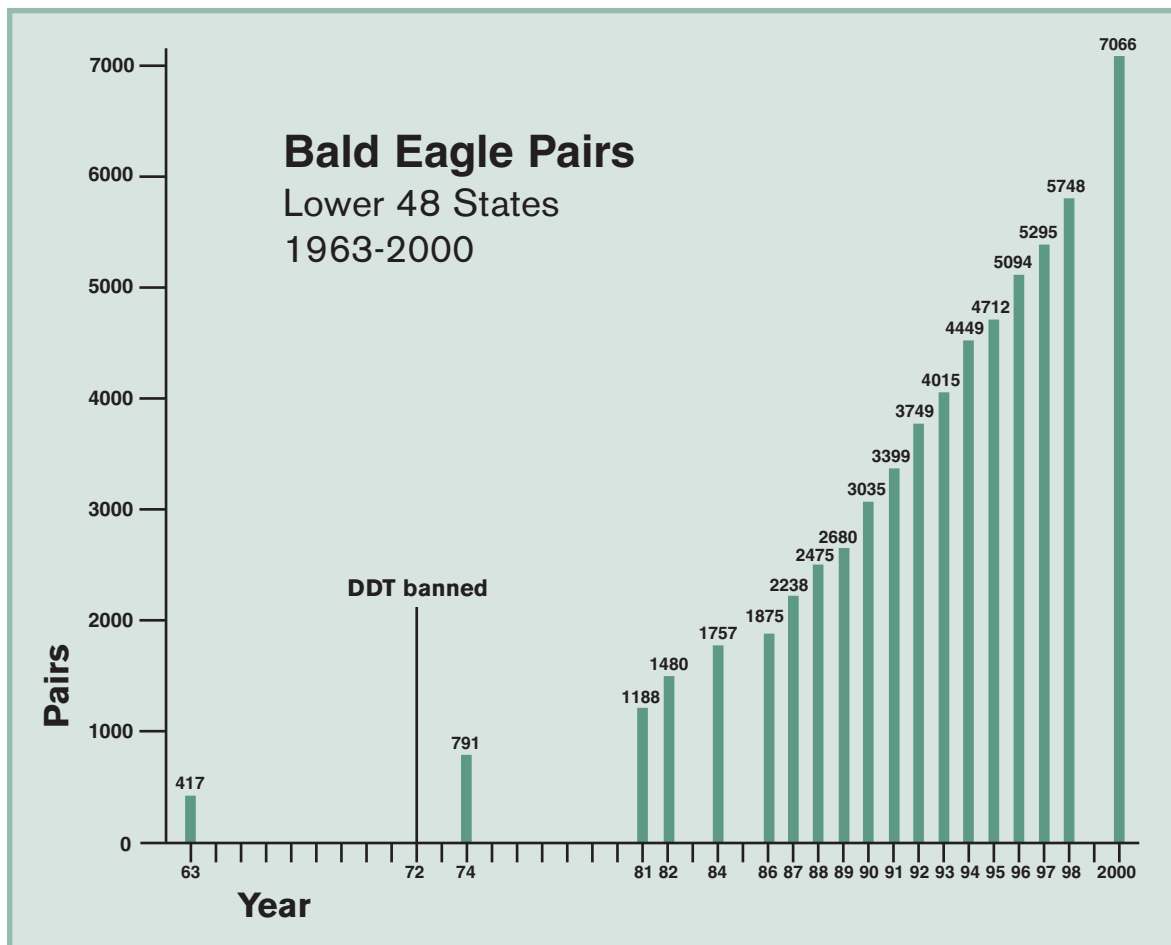
In 1962, Rachel Carson published the book *Silent Spring*. In it, she alleged that pesticides such as DDT were contributing to the sharp decline of birds, including the bald eagle. The book resulted in a public outcry that eventually led to the pesticide being banned for use in the United States in 1972 by the U.S.

Environmental Protection Agency (EPA) and at the urging of the U.S. Fish and Wildlife Service.

Without the ban and the protections provided by the Endangered Species Act, large birds such as the bald eagle would never have recovered. Today, there are nearly 7,500 nesting pairs of bald eagles in the lower 48 states (2003 figure from U.S. Fish and Wildlife Service, Jody Millar). Other birds that benefited from the ban include osprey, peregrine falcons (which have recovered and were taken off of the endangered species list in 1999) and brown pelicans.



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“On the mornings that had once throbbed with the dawn chorus of scores of bird voices there was now no sound; only silence lay over the fields and woods and marsh.”

-Rachel Carson
from *Silent Spring*



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percent of those—67 million birds—die as a result (Pimentel, D. and Acquay, H. 1992. The Environmental and Economic Costs of Pesticide Use. *BioScience* 42: 750-760).

One study concluded that pesticides contributed to the listing of approximately 17 percent of the more than 1,000 species listed under the Endangered Species Act between 1994 and 2001 (Wilcove, D.S., Rothstein, D., Dubow, J., Phillips, A., Losos, E. 1998. Quantifying threats to imperiled species in the United States. *BioScience* 48 (8): 607-615).

How the Endangered Species Act Protects Wildlife and People from Pesticides

All federal agencies are required to protect listed species and preserve their habitats, ensuring federal actions do not jeopardize the survival of endangered or threatened wildlife. The U.S. Fish and Wildlife Service and National Marine Fisheries Service (NMFS) consult with other agencies to plan or modify federal projects so they will have minimal impact on listed species and their habitats.

The consultation process is required for any action that “may affect” a listed species or critical habitat. If an action is likely to adversely affect a listed species or critical habitat, formal consultation is required, which results in a biological opinion in which the U.S. Fish and Wildlife Service or NMFS determines whether the action is likely to cause jeopardy or adverse modification. If jeopardy is likely, the action would be altered to protect or minimize the impact on endangered species or halted if necessary.

EPA, through the powers granted by the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), is the agency responsible for licensing pesticide use in the United States.

Under the Endangered Species Act, EPA must consult with the U.S. Fish and Wildlife Service and NMFS in advance of the licensing of a pesticide that may harm threatened or endangered plants and animals. This process assures that wildlife experts have the opportunity to evaluate the potential damage to a listed species before pesticide use occurs, and is an essential feature of the act. EPA may register a pesticide only where its use will not cause “unreasonable adverse effects” on health or the environment.

Currently, pesticide use under the Endangered Species Act is monitored in ways that benefit water quality and human health as well as wildlife and plants if properly followed. “For instance, the act’s provisions to protect salmon have led to the establishment of riparian buffers in the Pacific Northwest to reduce the amount of toxic chemicals entering rivers and streams. These protections benefit not just the salmon, and those persons who consume them, but all stream wildlife, and all water users, from fishermen to municipalities that rely on these rivers for drinking water.” (Farm Workers Sign On Letter Opposing the Pombo Bill, <http://www.saveesa.org/signon.html>)

In this way, the Endangered Species Act also helps protect people from the impacts of pesticides. This is a critical safeguard, as many of the laws pertaining to pesticide use and impacts to humans are weak.

Other Deadly Pesticides Are Used Today

An estimated five billion pounds of pesticides are applied worldwide each year, more than 20 percent of which are used in the United States alone (http://www.epa.gov/oppbead1/pestsales/01pestsales/market_estimates2001.pdf).

These pesticides are licensed by the federal government, but that does not make them safe. An estimated 670 million birds are directly exposed to pesticides each year on U.S. farms alone, and 10

The Pombo Bill: A Serious Threat to Wildlife

In September 2005, Congressman Richard Pombo (R-CA) railroaded a bill through the House of Representatives that would undermine our nation's commitment to the conservation and recovery of threatened and endangered plants and animals. Included in this bill is a provision that would allow EPA to bypass consulting with wildlife experts at the U.S. Fish and Wildlife Service when considering the registration and use of pesticides for the next five years. It also exempts all pesticide users from responsibility if the use of a pesticide harms a threatened or endangered plant or animal. This would make it impossible to stop the use of a pesticide even when necessary to prevent extinction. This provision of the bill would be devastating for wildlife, and human health would be placed at risk as well.

Congressman Pombo's bill deems that agencies and landowners who are in compliance with FIFRA are also in compliance with the Endangered Species Act. FIFRA's main objective is to authorize EPA to review and register pesticides for specified uses and evaluate whether a pesticide use would pose unreasonable risks (<http://www.epa.gov/pesticides/regulating/laws.htm>). While the mandate of the current Endangered Species Act is to protect and recover listed species, Congress tempered FIFRA's environmental safeguards through a cost-benefit balancing test. Therefore, FIFRA is not enough to protect endangered wildlife from the often-deadly effects of pesticides. "EPA interprets FIFRA to require balancing the profits from using a pesticide against the dollar value of harm caused by that pesticide, without adequately considering alternative products and techniques." (http://www.beyondpesticides.org/news/daily_news_archive/2005/09_28_05.htm)

EPA Does Not Have the Mandate or Expertise to Protect Endangered Species from the Potentially Deadly Impacts of Pesticides

Although required by the Endangered Species Act, consultations between EPA and the wildlife agencies have been infrequent.

In the 1980s, EPA initiated eight "cluster" consultations for the active ingredients of pesticides used to manufacture products applied to particular crops, such as corn. Those consultations showed that 201 pesticides "may effect" endangered plants or animals. From 1980 to 1990, the EPA also initiated consultation on various uses of 51 individual pesticides. In 2003, as a result of litigation, consultation was initiated by EPA to determine the effects of 55 pesticide ingredients on listed Pacific salmon and steelhead. In addition, EPA consulted on 18 pesticide ingredients on 33 listed plants in California (Artie Williams, EPA, Acting Associate Director, Environmental Fate and Effects Division, Office of Pesticide Programs. E-mail, 1/10/2006).

Even with the consultation requirement in the present Endangered Species Act, EPA has often failed to address the concerns raised by the U.S. Fish and Wildlife Service and NMFS.

For example:



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“Decades of research revealing the insidious effects of pesticides on humans and wildlife are being deliberately ignored. This bill could lead not only to a serious setback for wildlife but could create a major public health problem as well.”

-Theo Colborn

President, The Endocrine Disruption Exchange, Inc.

- **Atrazine's Impacts on Sea Turtles:** Atrazine has been banned in several European countries, but is one of the most widely used herbicides in the United States. Between 60 and 70 million pounds of the herbicide are used every year on fields, golf courses and lawns. The U.S. Fish and Wildlife Service has identified serious data gaps in EPA's review of the pesticide's ecological impacts (Letter from Everett Wilson, Chief, Division of Environmental Quality, U.S. Fish and Wildlife Service, to Kimberly Nesci Lowe, Chemical Review Manager, EPA, re: Comments on Reregistration of Atrazine, 6/27/2002). EPA has concluded that the herbicide may be jeopardizing the survival of endangered sea turtles and other species by impacting their reproductive success. Even so, the agency has not taken any steps to restrict its use ("Pesticide Threats to Endangered Species: Case Studies," January 2004, Beyond Pesticides).



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chance that salmon will mate successfully. Other pesticides have caused fish kills, impacted habitat and disrupted normal migration activities. The U.S. Fish and Wildlife Service has strongly urged that all uses of diazinon in the United States be restricted or cancelled due to the pesticide's high toxicity to wildlife (U.S. Fish and Wildlife Service comments 7/20/2000). EPA is currently involved in a court-ordered consultation with the NMFS on the adverse effects of pesticides on salmon. Since the consultation could take years, the judge has ordered interim protections to prevent pesticide applications near salmon streams ("Pesticide Threats to Endangered Species: Case Studies," January 2004, Beyond Pesticides).

EPA actions have illustrated that the agency lacks the expertise to evaluate the deadly risks of pesticides on wildlife.

- NMFS stated in its biological opinion on pesticide use on public forests that "Rainbow trout behavior changed at chlordane (organo-chlorine insecticide) concentrations below U.S. Environmental Protection Agency's not-to-be-exceeded concentration, illustrating the inadequacy of using current EPA application guidelines for avoidance of sublethal effects." (http://www.beyondpesticides.org/documents/Factsheet%20Counterpart%20Regs%20ESA%203_04.htm)
- The Fish and Wildlife Service comments on EPA's Atrazine risk assessment stated: "Risk assessments that fail to address [the pesticide mixing] issue are likely to underestimate the true potential for ecological impacts, and as such, this represents a critical data gap that EPA needs to address." (http://www.beyondpesticides.org/documents/Factsheet%20Counterpart%20Regs%20ESA%203_04.htm)
- EPA's assessment of the pesticide Diazinon acknowledged that EPA lacked knowledge about young Chinook salmon life cycles and habitat needs (http://www.beyondpesticides.org/documents/Factsheet%20Counterpart%20Regs%20ESA%203_04.htm).

While consultation has not occurred as often as it should have, there are cases that have led to mitigation of harmful impacts on wildlife, or in some instances restrictions or removal of dangerous pesticides from the market.

Successful consultations include:

- **Chlorfenapyr:** Chlorfenapyr is considered one of the most reproductively toxic pesticides to birds ever evaluated. Informal consultation between EPA and the U.S. Fish and Wildlife Service on this pesticide began during the "pre-registration" of this pesticide in early 1999. This early consultation allowed the U.S. Fish and Wildlife Service to provide technical assistance to EPA during the pre-registration period rather than wait until after registration. After a thorough analysis, the U.S. Fish and Wildlife Service recommended that the pesticide's application be denied based on concerns for wildlife populations, particularly migratory

"Without the checks and balances of the consultation process, there will be little to no effective method to safeguard our nation's wildlife or ourselves from the often deadly impacts of pesticides."

-Jamie Rappaport Clark
Executive Vice President, Defenders of Wildlife
Former Director, U.S. Fish and Wildlife Service

- **Diazinon's and Other Pesticides' Impacts on Salmon:** Pesticide pollution in salmon streams and rivers degrades water quality and may threaten salmon survival. Diazinon is found in Northwest waters at levels that reduce production of testosterone by male salmon, which may weaken the

birds and other listed species. Ultimately, the manufacturer withdrew its application for Chlorfenapyr, but not before EPA had prepared and signed the required documentation to proceed with a formal denial of registration (<http://www.fws.gov/contaminants/DisplayNews.cfm?NewsID=E2D4E089-7448-11D4-A169009027B6B5D3>).

- **Pesticide Ingredients:** A series of successful lawsuits has forced EPA to consult on various pesticides. A recent court ruling found that EPA had violated the consultation requirements of the Endangered Species Act when it registered 54 pesticide ingredients. These substances were found to harm threatened steelhead and salmon in the Pacific Northwest. Until EPA consults with the NMFS, the court ordered EPA to restrict the use of the pesticides near salmon-supporting waters and provide information that would be prominently displayed to notify consumers of the harm these products could cause salmon and steelhead (*Washington Toxics Coalition v. EPA*, 413 F.3d 1024 (9th Cir. 2005). <http://martenlawgroup.com/news/?20051102-protect-salmon-notice>).

The consultation process is key to providing the safeguards necessary to protect wildlife and people from the potentially fatal effects of some pesticides. It is startling that Congressman Pombo and the majority of the House of Representatives would vote for a bill that would place the responsibility for protecting our nation's most vulnerable wildlife from the deadly impacts of pesticides squarely in the hands of the one agency that has clearly shown they do not have the adequate expertise or the commitment to do so. Congressman Pombo's bill authorizing EPA to bypass this consultation process will only have deadly effects, as more pesticides will enter the market without the sufficient research to determine their true impacts.

Conclusion

For more than 30 years, Americans have committed to protecting and conserving our nation's wildlife so that future generations can enjoy a vast array of plants and animals.

Thanks to the Endangered Species Act's protections, pesticide use is monitored and mitigated in ways that benefit not just birds (including our national symbol, the bald eagle) and other wildlife, but water quality and human health. In fact, many of the protections for wildlife are also used to protect human health as well.

If EPA was considering whether to register DDT today, under the Pombo bill it would not be required to consult with the U.S. Fish and Wildlife Service on its impacts on bald eagles and other wildlife.

While the bald eagle is also protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, neither of these laws offers the safeguards of the Endangered Species Act, which protect eagles and other wildlife from the fatal impacts of pesticides. By providing for consultation prior to the use of a pesticide, the Endangered Species Act prevents harm or death from



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“History has told us that pesticides have had a deadly impact on many endangered species. We almost lost the bald eagle, our national symbol, to the pesticide DDT. This bill would dramatically weaken the government’s ability to stop pesticide use even when necessary to prevent extinction.”

**-Rodger Schlickeisen,
President, Defenders of Wildlife.**

occurring. The other laws only provide for penalties after the damaging effects of pesticides occur.

If Congressman Pombo's bill becomes law, it could undermine the recovery of our nation's symbol, the bald eagle, as well as other vulnerable creatures by allowing pesticides to be used without regard for their impacts on wildlife. Our nation's wildlife and children will suffer the ultimate consequences.

For more information on the Endangered Species Act, visit our Web site at www.saveesa.org



About Defenders of Wildlife

Defenders of Wildlife is a leading conservation organization recognized as one of the nation's most progressive advocates for wildlife and its habitat. Defenders uses education, litigation, research and promotion of conservation policies to protect wild animals and plants in their natural communities. Founded in 1947, Defenders is a 501(c)(3) organization with 490,000 members and supporters nationwide and headquarters in Washington, D.C.

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