

Conserving Endangered and Threatened Species on Private Land



Purdue University
Department of
Forestry & Natural Resources



United States
Fish and Wildlife Service



How does the presence of endangered or threatened species affect the use of my property?

What is a Safe Harbor Agreement?

What is a Habitat Conservation Plan?

What is the difference between HCPs and Safe Harbor Agreements, and how can they help me?

Who can answer my questions about the endangered species?

Landowners seek the answers to these and many more questions. The misconception exists among landowners that having endangered or threatened species on their property greatly limits the use of their property. While the Endangered Species Act helps conserve listed species and their habitats, Habitat Conservation Plans and Safe Harbor Agreements give landowners more flexibility regarding the applicability of the ESA and the use of their property when federally listed species are involved.

The purpose of this publication is to explain how Safe Harbor Agreements and Habitat Conservation Plans function to help conserve federal endangered and threatened species on non-federal lands. Every situation is unique. Therefore, you should contact your U. S. Fish and Wildlife Service office or state natural resources agency for additional information.

“Many attempts at improvements are aimed at fixing the pump rather than the well.”

- Aldo Leopold

Brian J. MacGowan

Extension Wildlife Specialist,
Department of Forestry and
Natural Resources,
Purdue University Cooperative
Extension Service

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What are endangered and threatened species?

As defined in the Endangered Species Act (1973), an endangered species is a species that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered within the foreseeable future. The purpose of the Endangered Species Act is to identify animals and plants that are in trouble so we may protect them and their habitat before they become extinct.

The Endangered Species Act has had its share of successes as

is evident by the recovery of many species such as the bald eagle (*Haliaeetus albicilla*), American alligator (*Alligator mississippiensis*), and peregrine falcon (*Falco peregrinus*). However, populations of many species continue to decline, and more species are listed each year (see Table 1 on page 9).

In addition to federal endangered and threatened species, states have separate listings. Contact your state natural resources agency for information regarding state-listed species and applicable state legislation.



Photo by Luther C. Goldman/USFWS

Passenger pigeon populations were estimated in the billions in the middle of the nineteenth century. In 1810, a single flock of 2.2 billion birds was observed in Kentucky. This species became extinct in 1914 with the death of the last pigeon.

What is “take”?

It is important to understand how the Endangered Species Act works in order for you to understand the purpose of Safe Harbor Agreements and Habitat Conservation Plans. The concept of “taking” a listed species is a critical part of that understanding. In order to prevent the further decline of a listed species, Section 9 of the Endangered Species Act (1973) and implementing regulations prohibit the “take” of any endangered or threatened species.

Take is defined as harm, harass, pursue, hunt, shoot, wound, kill, trap, capture, or collect an endangered or threatened species. “Harm” includes “significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing

essential behavioral patterns, including breeding, feeding, or sheltering.”

Preventing the taking and harming of an endangered or threatened species is one way the Endangered Species Act conserves listed species. By definition, a species can be harmed from modifying its habitat. As a result, property owners who conduct lawful activities on their land in a way that causes harm to a listed species are in violation of the Endangered Species Act, regardless of their intentions.

For example, you would be in violation of the law if you harvested a stand of trees that was inhabited by a maternity colony of Indiana bats (*Myotis sodalis*), a federally listed species.

Harvesting timber is a legal activity that can benefit many species of forest wildlife; however, in this case, the take resulting from the timber harvest would be illegal because it would result in the harm or “take” of a federally listed species.

This example raises some important concerns.

- If I have a listed species on my property, am I limited to what I can do on it?
- I would like to conduct certain management activities on my land but choose not to because in doing so, I will likely attract a listed species to my property.
- I would like to manage for listed species on my property but am afraid of potential land use restrictions.

The idea of providing habitat for endangered and threatened species appealing to many landowners. However, some are fearful that if they have listed species on their property, activities that they normally conduct on their land would result in the "harm" or "take" of that species, thereby violating the Endangered Species Act. This is unfortunate and counterproductive because people often perceive the presence of an endangered or threatened species on their property as a negative. In order to provide and manage habitat for listed species on private lands, this hurdle must be overcome. Safe Harbor Agreements were created to help landowners provide habitat for endangered and threatened species on private lands.



Photo provided by USFWS.

Red-cockaded woodpeckers have benefited from Safe Harbor Agreements in the southeastern U.S.

Safe Harbor Agreements

Safe Harbor Agreements are voluntary agreements between a landowner and the federal government. The agreements allow private and other non-federal landowners to manage their land in a way that restores, enhances, or maintains habitat for rare plants and animals while still meeting other management goals without incurring additional land-use restrictions.

Why do we need Safe Harbor Agreements?

Fearing restrictions on the use of their land, many private landowners have been reluctant to manage for rare plants and animals more than the law required, despite the fact that some want to do so. Some landowners have even managed their property in a manner making it unsuitable for listed species. Until the presence of endangered and threatened species is viewed as a benefit to the landowner rather than a restriction, conservation of endangered and threatened species on private lands will never reach its full potential. Safe Harbor Agreements can help overcome this barrier.

While Safe Harbor Agreements do not guarantee permanent or long-term habitat conservation for listed species, they do provide for short- and mid-term conservation of many plants and animals. These enhancements can play an important role in the long-term recovery of a species by providing temporary refuges and breeding areas, habitat connectivity, reduction in fragmentation, buffers to already protected areas, and opportunities to test new conservation strategies.

Safe Harbor Agreements may not be suitable in some situations. For example, if a

property owner is planning an immediate activity that may result in the incidental take of a listed species, then an application for an Incidental Take Permit and development of a Habitat Conservation Plan (HCP) is more appropriate (see page 6).

How do Safe Harbor Agreements work?

Non-federal property owners could enter into a Safe Harbor Agreement with the Fish and Wildlife Service if they anticipate that future land management practices may either attract listed species onto their property or increase the numbers of listed species present on their property. Safe Harbor Agreements are voluntary, written agreements between the federal government and the landowner. Agreements are developed with technical assistance from the Fish and Wildlife Service. No part of the agreement is final until both parties agree upon its entire content.

Under a Safe Harbor Agreement, property owners undertake or forego management activities on their land that will enhance, restore, or maintain habitat for federally listed species. Potential management activities may include actions such as prescribed burning, rotational grazing, wet-



Photo by John & Karen Hollingsworth/USFWS

The use of artificial nesting cavities has enhanced habitat for red-cockaded woodpeckers.

land restoration, or lengthening harvest rotations. All parties identify and agree upon the baseline conditions at the start of a Safe Harbor Agreement. Baseline conditions may be a particular habitat type (i.e., agricultural field, mature, second-growth forest, etc.), the number of listed species present on the property, or a combination of both. In order to qualify, a Safe Harbor Agreement must provide a “net conservation benefit” to the listed species identified in the agreement.

Once a Safe Harbor Agreement is approved, the landowner will be issued an enhancement of survival permit. This permit authorizes the landowner to return the land to baseline conditions after the Safe Harbor Agreement expires. Any incidental taking of listed species above the baseline covered in the agreement is legal under the enhancement of survival permit. This permit does not authorize landowners to directly harm or take a listed species, but simply to conduct management activities that would return their land to the condition it was in at the start of

the Safe Harbor Agreement (i.e., baseline condition).

Before the landowner returns the land to the baseline conditions, he or she must give the Fish and Wildlife Service reasonable opportunity to relocate listed species. There is no set time for the length of a Safe Harbor Agreement. The length of the agreement is set prior to its implementation, but will have to be long enough to meet the net conservation benefit standard for the species in question.

Safe Harbor Agreements for the red-cockaded woodpecker (*Picoides borealis*) have existed since 1995. The red-cockaded woodpecker is a small-sized woodpecker with a distribution limited mainly to North Carolina, South Carolina, and Florida. Red-cockaded woodpeckers require open pine stands at least 80-120 years old for nesting. Its decline has been attributed to a lack of mature pine stands and the encroachment of a hardwood midstory due to fire suppression. Under the Safe Harbor program for the red-cockaded woodpecker in North Carolina, landowners have enhanced the woodpecker

habitat by lengthening harvesting rotations, conducting prescribed burns, and constructing artificial nesting cavities, among other actions.

Largely due to the success of the red-cockaded woodpecker Safe Harbor program, the Fish and Wildlife Service recognized the potential conservation benefits that the application of Safe Harbor Agreements for other species could provide. Therefore, a final draft of the Safe Harbor policy was issued on June 17, 1999. Currently, 11 Safe Harbor Agreements, each covering 1 to 19 different species, have been approved.

How does my Safe Harbor Agreement affect neighboring lands?

Actions you take on your land under a Safe Harbor Agreement can result in listed species occupying your neighbor’s land. Safe Harbor Agreements usually contain provisions that minimize potential conflicts that arise from this kind of situation. These provisions vary on a case-by-case basis.

Prior to signing a Safe Harbor Agreement, you should be aware of potential conflicts with your neighbors. Many times, the neighbor will become a signatory of the agreement if it is likely that a listed species will occupy their land as a result of your Safe Harbor Agreement. In approved Safe Harbor Agreements involving red-cockaded woodpeckers, landowners adjacent to properties that are part of a Safe Harbor Agreement have not been responsible for providing habitat for woodpeckers on their land. Woodpeckers occupying the land under the Safe Harbor Agreement were uniquely marked. If they moved out into adjacent

lands, they were captured and relocated.

Thus far, Safe Harbor Agreements have not caused problems with surrounding landowners. However, in order for neighboring landowners to receive full Safe Harbor assurances, they must be a signatory party to the Safe Harbor Agreement; allow an establishment of the baseline on their property; notify the Fish and Wildlife Service prior to significantly modifying the habitat; and allow the Fish and Wildlife Service access to capture and translocate individuals of the covered species.



Baseline conditions can be the number of listed species, habitat, or both.

Photo by Ryan Hagerthy/USFWS

Can I end a Safe Harbor Agreement at any time?

Safe Harbor Agreements are voluntary agreements between the landowner(s) and the Fish and Wildlife Service. The agreement can be terminated by the landowner prior to the agreed upon date and the land returned to baseline conditions. This can be done even if the expected net conservation benefits have not been met. However, if additional individuals of the listed species covered in the agreement have occupied the land, the landowner must give the Fish and Wildlife Service reasonable opportunity to capture and relocate those individuals. This “reasonable opportunity,” usually defined as a specific length of time, can be written into the Safe Harbor Agreement.

What are baseline conditions?

Baseline conditions can be the number and location of listed species covered under the agreement, the habitat that could support the listed species on the land, or both. The baseline conditions must be identified for a landowner to enter into a Safe Harbor Agreement. Baseline conditions can be ascertained by having a biologist survey the property for listed species. The presence of a species can be obtained from observations of individuals and/or signs (i.e., tracks, scat, calls or songs, etc.). The Fish and Wildlife Service, state wildlife agency, or a private consultant may conduct the survey. Specific dates and times are pre-arranged and agreed upon by both parties. The baseline survey need only be conducted for the listed species in question. It is not an inventory of all endangered species on your property.

Both the landowner and Fish and Wildlife Service must identify and agree upon the baseline conditions prior to finalizing the agreement. These baseline conditions can be revised if circumstances beyond the control of the landowner affect them. For example, loss of nest trees due to a storm can impact the baseline conditions. You should contact the Fish and Wildlife Service after any flood, fire, or storm if it is likely that it affected the baseline conditions on your property.

Can the Safe Harbor Agreement be amended?

The Safe Harbor Agreement can be amended if necessary. For example, if non-covered or newly listed species occupy the area, they can be added to the agreement if both parties agree that they should be included. Management actions, baseline conditions, and net conservation benefits for the new species are identified and included into the agreement.

Can I maintain privacy on my property?

A Safe Harbor Agreement does not allow public access to your land, nor does it prevent you from implementing management actions not described in the agreement as long as such actions do not impact the beneficial actions you have already taken, or the original baseline conditions. There will be brief periods when you must allow the Fish and Wildlife Service or state natural resources agency personnel access to your land to evaluate the baseline conditions, assuring compliance with the agreement,

and possibly capturing and relocating listed species off your property at the end of the agreement. All parties, prior to the finalization of the agreement, agree upon the timing and frequency of these visits.

The application for an enhancement of survival permit is a part of Safe Harbor Agreements. This is a federal permit; therefore, a public notice of the permit application will be published in the Federal Register, followed by a 30-day period for written public comment.

Can I sell my land with a Safe Harbor Agreement?

Safe Harbor Agreements can be easily transferred between parties. The new landowner simply signs an identical agreement with the Fish and Wildlife Service. If the new owner does not want to participate in the agreement, then it can be terminated and the land returned to baseline conditions prior to its sale. Thus, enrolling in a Safe Harbor Agreement does not lower the value of your land or prohibit you from selling it during the term of the agreement.



Photo by Jeff Kiefer/USFWS

Improving habitat for listed species may include management activities such as prescribed fire or wetland restoration.

Habitat Conservation Plans

Before 1982, there was no measure in place under the Endangered Species Act to permit the take of listed species that might occur inadvertently during activities by private landowners. Thus, landowners could not conduct any activities on their land if those activities inadvertently harmed listed species. In 1982, Congress amended Section 10(A)(1)(B) of the Endangered Species Act to allow for the taking of listed species with Incidental Take Permits in an attempt to make the Endangered Species Act more flexible and effective by resolving conflicts between economic development and species conservation.

In order to receive this permit, one has to prepare and submit a Habitat Conservation Plan (HCP), a detailed plan that describes the effects of the taking on the species and how those effects will be mitigated. Incidental Take Permits do not authorize people to directly take listed species. Rather, they allow take to occur incidental to conducting lawful activities. Timber harvesting or building construction may be examples of such an activity.

Today, over 340 HCPs have been approved and about 200 more are being developed. The total area covered by approved HCPs is approximately 30 million acres. The majority of approved HCPs are for areas less than 1,000 acres. Several recently approved HCPs exceed 100,000 acres, and one even covers the entire state of Wisconsin (see page 8). An increasing number of HCPs address broad-based, landscape-

level planning for long-term conservation of several listed species.

How are Safe Harbor Agreements different from HCPs?

Habitat Conservation Plans were adopted in an attempt to solve the conflict between development and endangered and threatened species. Inevitably, development eventually impacts the environment and in some cases listed species. The Endangered Species Act provides for authorization of incidental take through development and implementation of a HCP to insure that potential negative impacts incurred upon listed species and their habitats are minimized and mitigated.

Habitat Conservation Plans are similar to Safe Harbor Agreements in many ways. Both programs help conserve endangered and threatened species on private lands, have a planning and review process, and are a required step in the issuance of permits for the incidental taking of a listed species. However, HCPs differ from Safe Harbor Agreements in several respects.

First, the Incidental Take Permit issued for an approved HCP is needed if the applicant anticipates an immediate taking of a listed species. For example, cases when a farmer plans to crop a fallow field that is currently occupied by Karner blue butterflies or a landowner wants to harvest trees in a stand occupied by a pair of nesting red-cockaded woodpeckers

would require a HCP. An enhancement of survival permit issued in accordance with an approved Safe Harbor Agreement allows for the taking of listed species at the end of the agreement for only those individuals that you created habitat for after signing the agreement (i.e., returning the land to baseline conditions).

Second, HCPs must show that they have minimized and mitigated the take and impacts to the maximum extent practicable and show that the taking will not appreciably reduce the survival and recovery of the species. Therefore, some loss of individuals for a covered species may be allowed in a HCP as long as that loss does not appreciably impact

that species. Safe Harbor Agreements must provide a net conservation benefit to covered species.

When is an Incidental Take Permit necessary, and how do I apply?

An Incidental Take Permit may be applicable for anyone who believes his or her activities will result in the incidental taking of a listed species. The Fish and Wildlife Service can assist you in determining if an Incidental Take Permit is necessary. They can also help you design your activity to avoid the taking of a listed species. If, in consultation with the Fish and Wildlife Service, you

determine that an Incidental Take Permit is necessary, then you must prepare a Habitat Conservation Plan. If the application that includes a HCP is approved, the Fish and Wildlife Service will issue an Incidental Take Permit.

An application for an Incidental Take Permit must include a standard application form, a HCP, and if appropriate, an Implementation Agreement and a National Environmental Policy Act (NEPA) analysis. An application form and the HCP guidelines handbook is available from your regional Fish and Wildlife Service office. It is the applicant's responsibility to draft a HCP; however, the Fish and Wildlife Service will provide

Habitat Conservation Plan for Karner Blue Butterflies in Wisconsin

The Karner blue butterfly (*Lycaeides melissa samuelis*) is a federally endangered species. It is a small, blue butterfly with a wingspan of about one-inch. It has a small home range and does not move from wild lupine (*Lupinus perennis*), a plant that the caterpillar is dependent upon as its food source. The largest populations of Karner blues are found in Wisconsin and Michigan, but they are also found in Minnesota, Indiana, New York, New Hampshire, and Ohio. Karner blues are usually found in dry, sandy habitats such as oak savannas or dunes.

Loss and degradation of habitat is the major threat to the Karner blue. Human development has decreased the amount of habitat available, while lack of disturbances such as wildfires and grazing has reduced the quality of habitat available. These disturbances help keep forests from encroaching their habitat, thus keeping it open for lupine and other flowering plants to grow.

Wisconsin contains the largest population of Karner blue butterflies of any state. However, Wisconsin was still losing Karner blues to habitat destruction on state and private lands. Ironically, many activities that resulted in the immediate taking of the species actually created habitat for the butterflies in the long-term. Otherwise, legal activities such as timber harvesting, mowing, or prescribed burning violated the Endangered Species Act if they resulted in the immediate harm or take of a listed species. These activities benefited the butterflies over time by creating early-successional habitat suitable for wild lupine, the only plant that Karner blue caterpillars feed upon.

Recently, the Wisconsin Department of Natural Resources with the help of several cooperators received an Incidental Take Permit and approved Habitat Conservation Plan for the Karner blue butterfly from the Fish and Wildlife Service.

This HCP will allow Wisconsin residents to conduct several management activities that may contribute to the long-term population viability of Karner blue butterflies, even if these same activities result in the incidental take of some butterflies.

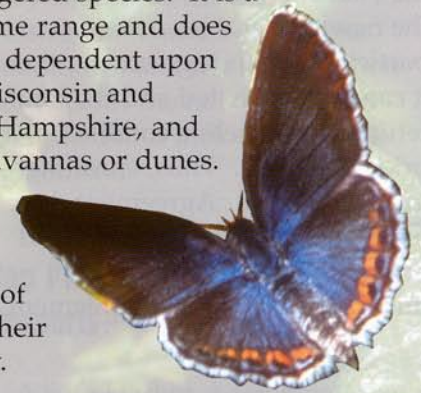


Photo by John & Karen Hollingsworth/USFWS

Many species are added to the list each year and even more are on the waiting list. Species are not listed arbitrarily. A formal process is used to determine if a species is included on the list of federal threatened or endangered species. Part of the process includes ranking species based on the magnitude of the threat to the species, the imminence of that threat, and the taxonomic distinctiveness of the species itself. Once it is decided that a species should be listed, the Fish and Wildlife Service publishes a rule in the Federal Register, an official government publication. The public is then given 30 days to send in written comments regarding the proposed rule. The entire process can actually take up to a year or longer and involves input from the general public, scientists, and other government agencies.

Once a species is listed, a recovery plan is drafted for that species. The recovery plan identifies current threats to the species, actions to be taken to increase populations of the species, and methodology to monitor the recovery of the species.

Table 1: Listings and recovery plans as of October 31, 2000

Group	Endangered		Threatened		Total	Species with Recovery Plans
	U.S	Foreign	U.S	Foreign		
Mammals	63	251	9	17	340	47
Birds	78	175	15	6	274	76
Reptiles	14	64	22	15	115	30
Amphibians	10	8	8	1	27	12
Fishes	69	11	44	0	124	90
Clams	61	2	8	0	71	45
Snails	20	1	11	0	32	20
Insects	30	4	9	0	43	28
Arachnids	6	0	0	0	6	5
Crustaceans	18	0	3	0	21	12
Animal Subtotal	369	516	129	39	1053	365
Flowering Plants	564	1	141	0	706	528
Conifers and Cycads	2	0	1	2	5	2
Ferns and Allies	24	0	2	0	26	26
Lichens	2	0	0	0	2	2
Plant Subtotal	593	1	144	2	739	558
Grand Total	961	517	273 ²	41	1792 ¹	923

¹ Species that are listed as threatened and endangered (dual status), and subunits of a single species listed as distinct population segments are only listed once in the table.

² Nine U. S. species have dual status.

guidance and technical assistance throughout the process. The application process for an Incidental Take Permit can be a lengthy process. The length depends not only on the complexity of the HCP, but also whether the proposed HCP requires a categorical exclusion, environmental assessment, or environmental impact statement under NEPA.

A Habitat Conservation Plan must include the following:

- An assessment of impacts likely to result from the proposed taking of one or more federally listed species.
- A list of measures the permit applicant will undertake to monitor, minimize, and mitigate for such impacts; the funding that will be made available to implement such measures;

and the procedures to deal with unforeseen or extraordinary circumstances.

- Alternative actions to the taking that the applicant analyzed, and the reasons why the applicant did not adopt such alternatives.
- Additional measures that the Fish and Wildlife Service may require as necessary or appropriate.

A public comment period is required for all applications for Incidental Take Permits. Also, some NEPA documentation requires public comment.

Applications are published on the Federal Register, an official government publication.

During the comment period, anyone can send written comments to the Fish and Wildlife

Service. By law, these comments must be considered and the HCPs adjusted accordingly. The duration of the comment period varies depending on the complexity of the HCP. Generally, public comment periods for HCPs range from 30 to 90 days.

In order for the Fish and Wildlife Service to issue an Incidental Take Permit for a HCP, the following conditions must be met:

- The taking will be incidental to an otherwise lawful activity.
- The impacts will be minimized and mitigated to the maximum extent practicable.
- Adequate funding will be provided to ensure that the HCP will succeed.

- The taking will not appreciably reduce the likelihood of the survival and recovery of the species.
- Any other measures the Fish and Wildlife Service considers necessary for purposes of the plan.

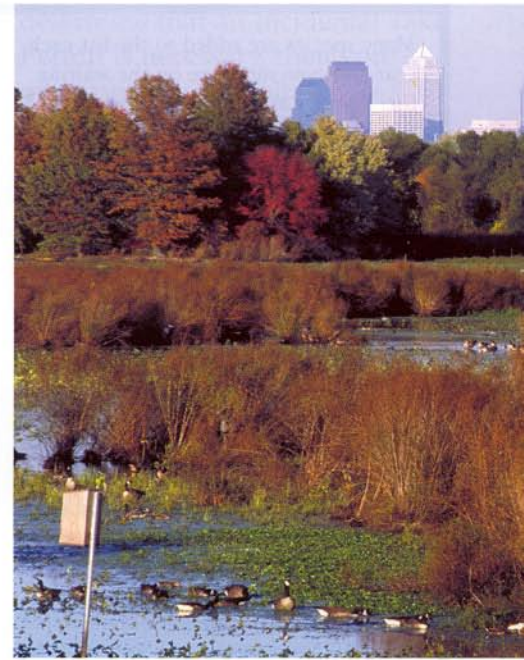
Once a HCP is approved and an Incidental Take Permit issued, it cannot be changed without the consent of both parties. In other words, there are “no surprises” for the landowner. These “no surprises assurances” are provided to the landowner by the government and ensure that the government will honor the agreement as long as the landowner follows the terms and conditions of the original HCP.

During the development of a HCP, the views of scientists are sought to assure the success of any mitigation measures. However, unforeseen circumstances can arise that may require a landowner to implement addi-

tional mitigation measures. If this happens, the landowner is not under any legal obligation for additional actions that were outside the scope of those agreed upon. At that point, the federal government is responsible for any additional measures that are necessary.

Recent changes to Habitat Conservation Plans

In an attempt to improve the HCP program, the Fish and Wildlife Service developed an addendum to the HCP handbook (also known as the five-point policy). The new HCP guidelines require that the Fish and Wildlife Service will: state that HCPs must identify biological goals and objectives, clarify and expand the use of adaptive management, clarify the use of monitoring, provide criteria to be considered by the Fish and Wildlife Service in determining Incidental Take Permit duration, and expand the use of public participation.



Development often encroaches upon critical wildlife. Conservation Plans can help strike a balance between practices.

The Fish and Wildlife Service can provide you more information and can assist you in interpreting these rule changes and how they may affect your application for an Incidental Take Permit.



Photo by Jeff Kiefer/USFWS

Summary

The successful recovery of many of our endangered and threatened species depends upon conservation efforts on private lands. Safe Harbor Agreements and Habitat Conservation Plans assist private landowners in conserving listed species on their lands while providing them flexibility in managing their lands. For more information on these programs, contact your local U. S. Fish and Wildlife Service office listed in the blue pages under U.S. Government, your regional Fish and Wildlife Service office, or your state natural resources agency.

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Photo by Claire Doberst/USFWS

habitat. *Safe Harbor Agreements and Habitat endangered species conservation and land-use*

"Biological diversity must be treated more seriously as a global resource, to be indexed, used, and above all, preserved."

E.O. Wilson



Photo by H.P. Weeks

Safe Harbor Agreements can help conserve listed species on private lands.



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