Next 200 Years-Endangered Species

Moderator: Jan Triplett

With

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And

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Sam Hamilton: Should we protect every animal and is one more important than another and that's been debated for many, many years. We've set recovery goals and our desire is to get those species off the list, and to bring them back to the point where they can sustain themselves.

Jan Triplett: Hello and welcome to The Next 200 Years. I'm your moderator Jan Triplett. Today we will look at endangered species and the efforts to save them. Joining me today are Dr. Mark Kirkpatrick, an associate professor of zoology at the University at Austin, and Sam Hamilton, the Texas State Administer for the U.S. Fish and Wildlife Service. Welcome gentlemen. Can you tell us, Dr. Kirkpatrick, a little bit about the Endangered Species Act, when did it come into being?

Dr. Mark Kirkpatrick: The Endangered Species Act was first put into effect by Congress in 1973, and it's currently up for renewal in Congress.

Jan Triplett: Mr. Hamilton, do you have some perspective on that Act, looking at it from an administration standpoint? Was that something that you felt was important to come into being, has it made a difference in the approach for the U.S. Fish and Wildlife Service?

Sam Hamilton: Well I think it has, it was passed in 1973 but it had a rich history leading up to that and there were a series of laws that predated that, that kind of laid the framework for protecting endangered species. And I think what happened in 1973, there was kind of a culmination of events that people realized that we could not sit back idly and watch species go extinct, so a very strong law was passed. And it's been amended several times, but I think it's been a highly successful act; certainly there are a lot of bumps in the road and we're experiencing a few of those today. But as far as the Fish and Wildlife Service is concerned, I think it's a very important law and it's targeting very rare species and the biological diversity of this country, which is so important to all of us.

Jan Triplett: Are there, you were talking about some successes, can you think of a particular animal that has been removed from the Act?

Sam Hamilton: Well, there are a number of successes and there are a lot more than people really, I think, are aware about. In particular, some of the high visibility species like the bald eagle and the American peregrine falcon and most recently the gray whale, these are all species that were threatened with extinction, as was the American alligator. Steps were taken to step in and really deal, I think, effectively with the threats to those species and today they're all making a significant comeback.

Jan Triplett: Dr. Kirkpatrick, has the Endangered Species Act put a different slant on conservation in the United States?

Dr. Mark Kirkpatrick: Absolutely. It is the strongest law that is in effect that allows the government and individuals to try to get some sort of protection for the biological diversity that we have in this country. And it's really affected how people attempt to enact conservation measures throughout the country.

Jan Triplett: Can you give us an idea of what are some of the criteria that a species must have in order to be part of the Endangered Species Act?

Dr. Mark Kirkpatrick: Yeah. The Act allows for a species to be listed as either threatened or endangered; an endangered status is a more severe, red flag, about the biological health of the species. And that indicates that the species is really in eminent danger of extinction. A threatened status indicates that in the view of the federal government the species is facing threats that if they continue or are not [unintelligible@39], may lead to the extinction of the species.

Jan Triplett: The spotted owl, which category does it fall under?

Dr. Mark Kirkpatrick: It's an endangered species, the northern spotted owl is.

Jan Triplett: And then we're looking at, certainly one of the other areas of interest in terms of conservation, are the Florida Everglades. Are those animals, generally speaking, considered endangered or…?

Sam Hamilton: Well, the Florida Everglades is an ecosystem in south Florida, and within the Everglades itself there are several species that are listed as threatened and endangered. There's the crocodile, it's a salt water crocodile found at the very tip of the Everglades. The Florida kite is an endangered bird that is found in the Everglades; there are a variety of plants and other animals, probably the most visible and probably one of the most endangered animals in the United States today, the Florida panther, down to just maybe 30 to 40 individuals are left in the Everglades. So it's a highly threatened ecosystem for which there are many, many threatened/endangered plants and animals there.

Jan Triplett: And Dr. Kirkpatrick, here in Austin, we have an area that we are trying to do some conservation attempts, Balcones Canyonlands and certainly the Barton Springs. Could you give us an idea of some of the animals that are considered part of the list or that you are looking at for the list?

Dr. Mark Kirkpatrick: Here in central Texas there is a really tremendous wealth of biological diversity, it has representatives in the birds; we have two endangered songbirds here in the local region, the Black-capped Vireo and the Golden-cheeked Warbler. In a series of caves that fall through central Texas, there is a very rich cave fauna consisting of many species of invertebrates, a large fraction which have not even been described by scientists, and then there are also some aquatic vertebrates, salamanders that are living in

the springs. Two of the songbirds have been listed, a number of the cave invertebrates have been listed as endangered species and currently the Fish and Wildlife Service is considering listing as an endangered species the Barton Spring salamander, which is found only at the spring head of a large spring in the middle of Austin, Texas.

Jan Triplett: And I understand, Mr. Hamilton, that there is a fourth area in southern California, I believe, that is being looked at for conservation area.

Sam Hamilton: Well there are, what we consider in the Fish and Wildlife Service, several hot spots throughout the United States where you've got very rare and unique habitats and endangered species colliding with strong economic forces and primarily development, urban development. Southern California is not a whole lot unlike what we're seeing in Austin, Texas, and you've got tremendous real estate development activity occurring throughout that region, and you've got a highly diverse ecosystem that's right, really, in the path of that development. Secretary Babbitt has recognized that southern California, certainly the northwest where we have the spotted owl issue, central Texas here in Austin, and I would say Florida, are the real areas where we have an opportunity to kind of balance the desires for economic development and ensuring that the endangered resources are protected so they are the focus areas for what we consider to be the large habitat conservation planning initiatives in the country.

Jan Triplett: You spoke just briefly about some of the issues facing the criteria and some of the people who might have come down on one side or the other of the issues. Certainly, one of them is property rights that we hear a lot about. Can you give us a little bit of perspective on how those issues are being addressed?

Sam Hamilton: Well, I think that the property rights, probably right now, is on the forefront of the debate on reauthorization of the Endangered Species Act, but not only that Act but all environmental laws. And there is a strong movement afoot that I think has kind of taken off like sagebrush rebellion from years past and it's a wise use movement. And it's a question of how far the American public will tolerate regulatory schemes and the effect that has on one's property. And so this kind of nationwide movement of property rights is kind of filtering through all the environmental laws as they're coming up for re-authorization. I would say that in speaking of that, in the history of the Endangered Species Act and the 21 years that it's been on the books, and certainly in Texas, there's never been one property rights taken case ever brought on the Endangered Species Act. We're very careful about that and very concerned about making sure that we try and balance the goals that we're trying to achieve here with one's property rights. If, in fact, if there were determined to a taking of one's property rights associated with that, the Fish and Wildlife Service, the federal government would be responsible to purchase the property if that were the case. So there's a lot of political rhetoric surrounding this particular issue for which there's not a lot of substance in my opinion at this time. But certainly it's being debated on the hill in Washington D.C. and it's certainly a very popular topic at this point, but when you look at the substance and you look at the history, it's just not here. But it's certainly a rallying cry that we see for this organized movement throughout the country.

Jan Triplett: Dr. Kirkpatrick, do you basically see the two sides, being people who are for animals and people who are for property, or are there some mixtures, or is it really as clear cut an issue as sometimes the media presents it to be? "I get to use my property the way I want," or "I get to save animals."

Dr. Kirkpatrick: No, there's a lot more common ground than gets attention in the media. Typically, people have found that wise economic growth, when done appropriately, is completely compatible with biological diversity. And a lot of times we are painted a picture in the media of a confrontation between those two sides when in fact the situation is that the health of the urban area will, in the long run, be better economically if its biological resources are taken care of properly. We all care a lot about the quality of life, that's what's making areas like southern California and central Texas grow so rapidly, they're very attractive to people because of the outdoor resources in large part and to the extent that those can be protected will have an investment in the long-term health of these regions from an economic perspective as well.

Jan Triplett: Looking specifically, for instance, at the Barton Springs salamander, can you give us an idea of how that would fit into the scheme that you were just discussing?

Dr. Mark Kirkpatrick: We have here a situation where it's not just this salamander, but in fact an entire ecosystem that's a representative of one of these spring ecosystems found in central Texas. In the case of the Barton Spring salamander and its ecosystem, the salamander is living at the outflow of a watershed that extends from central Austin out in a pie shape piece that's maybe only one fifth of the pie, one fifth of the entire Austin Metropolitan area. That leaves an awful lot of ground in which appropriate development can take place if appropriate conservation measures are taken in the watershed to protect that aquatic ecosystem; we'll have plenty of area for economic development but also be able to conserve that resource for everybody to enjoy.

Jan Triplett: And by doing that, we'll be increasing our quality of life here in the central Texas area, is that the idea?

Dr. Mark Kirkpatrick: Try to preserve it at the high level that is already, that's right.

Jan Triplett: Okay. One of the things, Mr. Hamilton, we hear a lot, again going back to people's perception about the Act, is that it's possible for them to recover and to come off the species act, and so do we really need to worry and save every animal?

Sam Hamilton: Well, that's a good question in terms of should we protect every animal and is one more important than another, and that's been debated for many, many years. We've set recovery goals and our desire is to get those species off the list and to bring them back to the point where they can sustain themselves, and that is certainly the goal. And we consider it a great failure, not only on our part but the society's, that species actually make the list because if they make the list that means we failed in some way to protect the environment that they depend on. It's very difficult to determine, for anyone

to decide is one species more important than another. Generally, if you look back over history, it's those obscure species that have tended to be of incredible importance to mankind, whether it's molds and penicillin or rosy periwinkles, a small plant found in Madagascar thought to be just a nuisance, it turns out to be an incredible treatment for certain of types of cancer. In the Pacific Northwest, the Taxol generated from the Pacific yew plant, which was considered to be a noxious weed up until the last five years and it turns out that the Pacific Yew now is the most significant find in this country's history for treatment of ovation and breast cancer. So there are folks that continue to advocate that we can't save every species, and I guess I would counter with that and can we afford not to.

Jan Triplett: Dr. Kirkpatrick, if we're looking at it from a zoologist's standpoint, are there criteria that are important in terms of maintaining a larger ecosystem that we need to consider when deciding what should be saved and what should not?

Dr. Mark Kirkpatrick: I think our goal right now is to try to save whatever fraction of the biological diversity we have before us as possible. There is no doubt that no matter how strong an effort we make we're going to lose a large fraction of it. Let me give you a specific number to back that up. We would be we very impressed with ourselves as a society if we could design some sort of plan and implement it that would guarantee a species or ecosystem a 99% chance of surviving, for say, a 1,000 years; that would be remarkable. Under those odds though, there's less there 1 in 10,000 chance that the species in those ecosystems will last the lifespan that they normally would in the absence of human activity. So I think that by trying to save every species, we'll be lucky if we can save even a small fraction of them. There's no chance that even if we identify all the species that are facing challenges right now, we're going to be successful in actually conserving them.

Jan Triplett: I've heard an argument, again by some property people, that "how can you protect particularly animals because they wander all over the place and they may be in one place today and one place tomorrow." How do you, as a zoologist, how do you deal with that and how does that fit into the Endangered Species Act?

Dr. Mark Kirkpatrick: There's no simple answer to that because it depends on the biology of the specific species. In many cases we have to take a composite strategy, in the case of migratory songbirds, we would like to be able to work with other countries, not just within the confines of the U.S., to develop a comprehensive management and conservation plan, and that's, of course, very politically difficult. In some cases, it's less difficult, there are many species animals and plants that have highly restricted distributions, and those are the species that are often times facing the greatest threats because they don't have the ability to move away if their habitat is altered, if the trees are cut down, or the water is polluted where they live.

Jan Triplett: We know something about the tigers that are considered an endangered species. What other worldwide species are we dealing with that are close to extinction that are really prominent that you can think of that we should know about?

Sam Hamilton: Well, particularly when we get into some of these incredibly endangered animals, let's say the panda bear, or the tigers that you mentioned, or the rhinoceros, for example, in Africa, the Florida panther in the state of Florida. When you get to so few individuals, many, many factors begin to play into whether or not you can actually protect that species and recover it. Clearly when the habitat has been degraded to the point, and in many cases that's why these animals are so endangered or they've been hunted to extinction or something like that, that you get into factors such as genetic diversity and can the animals reproduce and do you have genetic stock left with the few individuals you have left to even bring them back. It becomes much more complex a problem when you get to those few individuals. We have what we call CITES, which is the Convention on International Trade of Endangered Species, and many, many countries throughout the world are members of CITES delegation. Basically that's an international arrangement and agreement that we're all going to protect our endangered animals. And so here in the United States we actually have an international list of those species in other countries that are protected under this international law, and it really governs the trade and importation and exportation of these rare animals. And to a large degree when you look at the success, recent success, for example, the African Elephant and the comeback that it has made in certain countries, it's a direct response to some actions that were taken under CITES, under this international law.

Jan Triplett: Were they sanctions of some sort or reprimands, what exactly did CITES do?

Sam Hamilton: Well, that's exactly right, and there are sanctions that can be placed and that are placed on countries if they don't adhere to the principles of that law. There are economic sanctions that come into play, there are a variety of ways that the different countries can bring pressure to bear on a country that it may not necessarily be living up to the standards set forth in the law.

Jan Triplett: Certainly, one of the ones that we've heard of most recently has been Japan and Norway, I believe, dealing with whales. Is that one of the CITES examples?

Sam Hamilton: Yeah, and that's covered under some other laws, but that's exactly the same type of format and it's the international community taking a hard look at the actions of those countries and whether or not they're consistent with the parties that have signed onto the agreement.

Jan Triplett: Are there any examples of species, Dr. Kirkpatrick, this is really a question for you, that have been removed from endangered species that have either done one of two things, that have become endangered again for whatever reason or have become so much of a nuisance because they have grown so big that we're now facing a control issue?

Dr. Mark Kirkpatrick: Inundated with formerly endangered species.

Jan Triplett: Yes.

Dr. Mark Kirkpatrick: I don't think I can think of any example, maybe Sam can, of an animal or plant that has recovered to the point that it's actually become a nuisance. I think that those examples that have, those species that have been removed from the list are in a stable population but certainly haven't exploded to over populate the countryside.

Sam Hamilton: No, I can't think of one that I could characterize as a nuisance. Probably the greatest success story had been the American alligator, and there are some that might characterize it as a nuisance in certain parts of the country. But really what it's done is it's been restored to a level now where we have, actually, a commercial industry and it's a sustainable industry that's really regulated that provides an economic return on different products generated from alligators. But that is the closest thing to a huge success story that's brought back significant numbers.

Jan Triplett: I think I was thinking about those alligators who walk off the swamps and into people's back yards and devour dogs and things.

Sam Hamilton: But the thing to keep in mind there is that, that house was built in the swamp.

Jan Triplett: That's true, that's true. I appreciate that. Certainly it seems that perhaps your department has really found an economic, another economic advantage, which is to look at the Endangered Species Act as a way to return the species to subsequent levels where they can sustain themselves or perhaps grow to where they can add value back to the economy, not only in terms of quality of life as Dr. Kirkpatrick was talking about, but in an economic sense. Are there other animals that are doing that?

Sam Hamilton: Well, there's no doubt, in my opinion, that the future and the conservation of endangered species hinges on that very point, the ability to provide some economic return to many people in the United States, I think, is very important, and probably the area that comes to mind here just locally in Texas is the whooping crane. And from a bird watching standpoint if you go to the coast of Texas and you go down to Matagorda Island and places like that; tremendous economic activity, hundreds and hundreds of thousands of dollars being poured into the local economy from people coming from all over the world to observe these birds. So I think that gives us an indication, just a small glimpse of the type of economic activity that can be associated with these very rare and unique animals that we're trying to protect.

Jan Triplett: Dr. Kirkpatrick, can you see an economic value besides quality of life?

Dr. Mark Kirkpatrick: Sure, I think we've touched on a couple of them already. There's ecotourism as Sam was just describing. There are many species which have unknown or underexploited economic value, and plants are particularly rich in potential there. And then there is the aesthetic issue, of course, of trying to conserve a fundamental part of our natural environment.

Jan Triplett: We've talked a lot about animals, but could you talk a little bit about plants, some of the issues involving endangered plants?

Dr. Mark Kirkpatrick: Plants are, in many cases, more economically central to our lives, of course, we couldn't live in modern society without all the gains of artificial breeding working with plant stocks, and so it's particularly important that we conserve biological diversity in plants. Unfortunately, the Endangered Species Act and other acts that are in place in other countries don't provide for plants anywhere near the level of protection that animals receive, and this is a big worry. There are a range of, a range of things that would be nice to strengthen about the Endangered Species Act, probably my greatest worry is concerning the kinds of measures that we're able to enforce with plants. Right now I think the great hope for many conservation biologists in this country is that the Act can be largely preserved as it is because it is the flagship law for biological conservation in the world.

Jan Triplett: If we were trying to add things, in terms of plants or animals, are there specific elements that you'd like to see in it?

Dr. Mark Kirkpatrick: Yeah, I think it would be highly advisable to have the same kinds of protections for plants as for animals, that is to say an endangered species of plant would not be allowed to be harmed by activities of private individuals or the federal government.

Jan Triplett: And perhaps, Mr. Hamilton, since you work for the government it might not be perhaps the most appropriate, but because you deal with it on a day-to-day basis, are there some elements of the Act that you see need to be reconsidered or investigated further?

Sam Hamilton: Well, I've been very close to a lot of the discussions on reauthorization and certainly there are just a whole long list of areas that I know, or are in focus. Currently the Act is structured in a way that it's a very heavily weighted toward the regulatory end of the scheme that, that regulatory aspect is the, really the hammer approach to conserving endangered wildlife. I think that one of the areas that's going to be most important in reauthorization is providing incentives, economic incentives in a way, and there are a variety of ways to do that, to encourage land owners to want to protect these rare species on their private property. Virtually all the species listed in the United States at some point in their life cycle touch private property and it's very important that we have those private landowners participate in a constructive way in protecting these species. So I think, more than anything else, there has to be some provisions placed on the law that allows incentives for landowners to be encouraged to do this.

Jan Triplett: What do you think will happen in the future? Do you think that is where things are going?

Sam Hamilton: I have never seen anything as clouded as the future in respect to this law. I think we have a virtual stalemate in Washington with the U.S. Congress on this issue. I am deeply concerned about it, but also optimistic; we've got great leadership, we've got folks at very high levels who want to make this law work in a very constructive way.

Jan Triplett: And who are those people?

Sam Hamilton: The Secretary of Interior is one for sure, and I would say throughout this administration there is a strong commitment and a desire to try and make this law work in an equitable way, and to ensure that these rare resources are protected. And I think that has a large degree do to with why reauthorization of the Act has not occurred today, they're waiting on those opportunities to succeed.

Jan Triplett: Dr. Kirkpatrick, what do you think about the future?

Dr. Mark Kirkpatrick: I have no crystal ball in front of me, and I guess the best I can hope for is that we're able to work in such a way that we can keep the protections that we have in place and not lose those and strengthen some of the loopholes that have been identified over the last five or ten years history of the Act.

Jan Triplett: So in the next 200 years, the name of our program, do you think we will have perfected that system, do you see that?

Dr. Mark Kirkpatrick: I'm afraid over the next 200 years we're going to see the massive loss of biological diversity in the U.S. and around the world, there's no doubt about it. We're in the middle of one of the largest episodes of extinction in the history of this planet. What laws will be in place 200 years from now, I can't possible forecast; 200 years seems like a tremendously long timescale to you and to me, but that's less than a thousandth of a percent of the average lifetime of a species on the planet Earth.

Jan Triplett: Thank you gentlemen very much. Today's guests have been Dr. Mark Kirkpatrick, an associate professor of zoology at the University of Texas at Austin, and Sam Hamilton, the Texas State Administrator for the U.S. Fish and Wildlife Service. The technical director for the Next 200 years is David Alvarez. The producer is Michael Lee, and I'm your moderator, Jan Triplett. Join us again next week for The Next 200 Years.

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