

Testimony of Judith Schoyer Rodd, Director, Friends of Blackwater, on behalf of the “SOS! – Save Our Squirrel” Coalition, before the Committee on Natural Resources, U.S. House of Representatives, May 9, 2007, Longworth Office Building, 10:00 A.M., on “Endangered Species Act Implementation: Science or Politics.”

Oral Testimony

Thank you for the opportunity to appear before your committee. My name is Judith Schoyer Rodd. I am the Director of Friends of Blackwater, a citizen organization with one thousand dues-paying members, and offices in Tucker County and Charleston, West Virginia.

We West Virginians are extremely proud of our beautiful mountains, rivers, and rural communities, and we are fierce and zealous in their defense and protection. That is why I am appearing today on behalf of the “SOS! – Save Our Squirrel” Coalition, a consortium of 25 groups that have banded together to prevent the U.S. Fish and Wildlife Service from removing federal endangered species protection for the West Virginia Northern Flying Squirrel, (*Glaucomys sabrinus fuscus*). Our Coalition member groups include The Wilderness Society, American Lands Alliance, The Center for Biological Diversity, Southern Appalachian Biodiversity Project, Southern Appalachian Forest Coalition, Heartwood, Stewards of the Potomac Highlands, and Maryland Conservation Council.

“Ginny” the flying squirrel, as we like to call her, is the “signature species” of our State’s highest mountains. Ginny is a relic of the last Ice Age. When the glaciers retreated, Ginny’s ancestors were isolated on the high mountain ridges of six West Virginia counties (and one in Virginia.) Ginny has evolved a remarkable lifestyle, surviving in a demanding and specialized habitat, feeding at night on underground fungi that grow in the cool, moist, forested mountaintops.

Ginny has been on the federal Endangered Species List since 1985. In the Fall of 2006, officials at Fish and Wildlife announced a fast-track “de-listing” proposal for Ginny. The proposal, developed in secret, without input from official recovery plan authors, is to strip all federal protections from the West Virginia Northern Flying Squirrel.

This proposal generated a huge negative public reaction. The agency says that the public cannot see 2,325 pages in the agency’s files on de-listing. Members of Congress -- this isn’t national security. What can be so secret about a squirrel?

The agency’s stealth “de-listing” plan is illegal and absurd – procedurally and substantively. Fish and Wildlife admits it has no idea how many squirrels there are. The threats to Ginny and her habitat are growing, not shrinking. The meager scientific data on Ginny’s habitat and likely future has been “cherry-picked” and mischaracterized, to support a clearly predetermined conclusion. The leading scientist who has studied the squirrel for decades has opposed the de-listing proposal.

More than 5,000 people have sent comments to Fish and Wildlife opposing the plan, and we have submitted a fifty-page comment letter, refuting every assertion in the agency’s proposal. Members of Congress, people in the agency tell us they have had no funding to implement the recovery plan, and instead they are planning how to scrap the recovery plan altogether. Certainly it would solve a lot of problems – for everyone but the species and its habitat!

It is shameful and shocking to learn that what we are experiencing in West Virginia is a symptom of a greater problem. The attempted rollback of endangered species protection across America – political appointees who appear to despise the very law they are sworn to uphold. We join with Americans everywhere in saying we will not tolerate any rollback of the protections of the Endangered Species Act.

As I speak to you today, Ginny is nursing her babies in a birch-bark lined nest. Ginny can survive the cold mountain nights, but she can't protect herself from Beltway machinations. It's up to us to protect Ginny -- and all of the other wonderful parts of the Creation. Our "SOS – Save Our Squirrel" Coalition represents millions of Americans who expect nothing less from our government. That's why I thank you for this opportunity to come to Washington and tell our story. I have included further remarks in my written testimony and I will be happy to take any questions.

Written Testimony

Issues in FWS implementation of the Endangered Species Act nationally.

I would like to make the following points about the importance of endangered species recovery plans. The Endangered Species Act requires FWS to develop recovery plans for endangered species. Recovery plans are a roadmap for protection and recovery of the species. For a species to be de-listed or downlisted, it must meet the recovery criteria contained in the recovery plan.

The Bush Administration has completed fewer recovery plans than any administration since the Carter administration. To date, the Bush Administration has completed just 100 recovery plans, compared to 577 under the Clinton administration and 174 under the first Bush administration. Moreover, the Bush administration has interfered with development of recovery plans to an unprecedented degree.

The Apache trout recovery plan is one example. Then-regional-director Dale Hall went around the Apache Trout Recovery Team to revise the Apache Trout Recovery Plan to make it easier to de-list the trout. Over the objections of the Team Members the weaker, revised plan was adopted. The Northern Spotted Owl recovery plan is another example of interference in the development of recovery plans.

The Bush administration has also ignored recovery plan criteria in order to speed downlisting and de-listing of species, and not only in the case of the West Virginia northern flying squirrel. For example, in April 2006, FWS recommended downlisting the Florida manatee from endangered to threatened, even though it admitted the manatee had not yet met the downlisting criteria established by a panel of scientists in 2001 to assess the manatee's progress, and contained in the recovery plan. FWS claimed it ignored those criteria and instead followed the legal definitions of "endangered" and "threatened." FWS cancelled its downlisting plans shortly afterward after an outcry from scientists and the public.

I also wish to address the recently leaked proposed changed Fish and Wildlife Service regulations for the Endangered Species Act, which exemplify the contrarian approach of the administration to science. The administration's draft regulations would limit scientists' ability to do what is needed to recover species. This developing regulatory package is an attempt to formalize the administration's approach of

suppressing and distorting endangered species science to get the outcomes it wants. Specifically, the proposed changes would tie scientific hands regarding decisions about whether to list a species as threatened. A species should be listed as threatened if it is likely to become endangered within “the foreseeable future”. Currently, this definition is left up to scientists, because it varies case by case. The draft regulations would arbitrarily define “foreseeable future” as “10 generations or 20 years, at the discretion of the Service” in most cases. What would that mean for species like the WV Flying Squirrel, which is threatened in the long term by global warming?

The draft regulations also improperly devolve authority to the states. Currently, States are encouraged to participate in recovery planning, listing decisions and critical habitat designations, but the U.S. Fish and Wildlife Service maintains the ultimate responsibility and authority to make a scientifically-based, non-political decisions. It often does so over the objections of state agencies, which are more beholden to local political pressure. The Administration’s draft regulations say "States, may request and be given the lead role in almost every aspect of the Act, including, but not limited to, [listing, consultation, and Habitat Conservation Plans.]" There are many reasons, from political pressure in-state to resources of the state agency, for caution when handing such responsibilities to the states.

Comments On the Proposed De-Listing of the West Virginia northern flying squirrel

The proposed de-listing rule for the West Virginia northern flying squirrel (WVNFS) is deeply flawed and fails to meet the basic requirements of the Endangered Species Act for recovery of a species. The squirrel is not going to “fly solo” as the Fish and Wildlife Service claims but instead will glide into extinction under this proposal. Here are the problems with the proposal.

1. The Administration’s process for this de-listing proposal violates the Endangered Species Act by ignoring the WVNFS Recovery Plan standards and fails to provide a post-de-listing monitoring plan for public review and comment.
2. There is no credible information on the flying squirrel population, which in turn does not allow assessment of population trends.
3. There is inadequate and misleading information on flying squirrel habitat.
4. There are flaws in the modeling for flying squirrel presence, capture counts and habitat needs.
5. The plan relies on the good intentions and interest of others to protect the squirrel after de-listing despite an inadequate regulatory framework and lack of funding.
6. There is inadequate analysis of ongoing and cumulative impacts on flying squirrels, including failure to examine the devastating effects of:
 - Climate Change
 - Energy Development
 - Private Land Development and Highway Construction
 - Timbering

Process Concerns

Ignoring the Recovery Plan is Violation of the Endangered Species Act

The WVNFS de-listing proposal is the clearest crystallization to date of a heretofore background effort by the Bush administration to dispense with recovery plans by arguing that objective, measurable, concrete de-listing criteria should be overridden by the five non-criteria-based listing factors. The Fish and Wildlife Service (FWS) throws out the Recovery Plan for the squirrel by saying it is too old and is irrelevant because “new light” has been shed and “new information has become available” which is never explained. The recovery plan was amended as recently as 2001 and the Service has not and cannot demonstrate that the recovery criteria are scientifically inadequate. The recovery plan’s requirement of population stability is the bedrock of conservation biology and can not credibly be replaced by an unscientific concept of “persistence,” and the recovery plan’s requirement of perpetual habitat protection is another important principle of conservation biology.

It is quite evident that there is nothing inadequate with the recovery criteria in the plan. The de-listing proposal and 5-year review certainly do not demonstrate any inadequacies. To the contrary, its justification for designating the species as recovered follows the same general logic as the plan: the population is healthy, the species life history is sufficiently known to be managed, the habitat is currently protected, the habitat will be protected into the foreseeable future. Furthermore, the de-listing proposal and 5-year review repeatedly state that these have been accomplished by implementing the plan. However the logic doesn’t match the facts on the ground.

It is no accident the Service tries to denigrate the Recovery Plan because it cannot meet the goals for de-listing the squirrel as outlined by the Plan. First, the Recovery Plan requires that 80% of the core habitat (Geographic Recovery Areas or GRA’s) for the squirrel have a stable or increasing population for at least ten years. There is no data indicating whether the WVNFS is stable, increasing or decreasing. How does the Service deal with this problem? It throws out the goal because it would prevent de-listing. While not alerting the reader that it is violating this provision of the recovery plan, the Service substitutes the demographically meaningless and undefined concept of “persistence” to replace population measures. Secondly, the recovery plan requires that all core habitat areas be managed for the species in perpetuity. The de-listing proposal admits that they are being managed under a multiple-use mandate that will result in continued logging of important squirrel habitat. And thirdly, the recovery plan requires that high elevation forests be protected in perpetuity, while the de-listing proposal notes that they may be completely destroyed by global warming.

Process Out of Order: Need for Comment Period on the Post-De-listing Monitoring Plan

It is clear from the December 19, 2006 Federal Register Notice and the meeting on February 9, 2007 between Friends of Blackwater and the FWS that the agency does not

have a post-de-listing monitoring plan in place. This is a problem for a number of reasons. The ESA requires that a post-de-listing monitoring plan be published simultaneous with the de-listing rule. Unless and until such a plan is distributed to the public, this de-listing rule is arbitrary, capricious, and not in accordance with the law.

Any purported plan has not undergone full public scrutiny. The public has a right to comment on the full range of what is proposed in de-listing the flying squirrel. In failing to provide the post-de-listing monitoring plan at this time, the FWS is fragmenting the commenting process and denying the public the opportunity to provide fully informed comments. A second comment period will be required when the post-de-listing monitoring plan is completed. The 5-Year Review and the post-de-listing monitoring plan are inextricably linked. In order to understand if the assertions of species viability after de-listing contained in the 5-Year Review are true, it is necessary to know the monitoring steps proposed to ascertain the state of squirrel viability. This critical information is missing since the post-de-listing monitoring plan has yet to be written.

FOIA Request and the Comment Period Deadline

Friends of Blackwater submitted a FOIA request (#2006-00988) on the West Virginia northern flying squirrel proposed de-listing rule Sept 10th, 2006. We received materials from that FOIA request on December 19th. Friends of Blackwater appealed the partial denial of 2,325 pages of documents. This appeal was submitted on Feb 2, 2007 (Appeal Number 2007-060). We received phone confirmation that more documents would be released in February. We have yet to receive any of the released documents.

We would like an official explanation for the long delay in the release of these materials. When can we expect to receive these documents? Withholding documents undermines the rule making process, and lessens public trust in federal agencies. It further undercuts the ability of the public to make informed comments when denied access to legally releasable materials that serve to illuminate the proposed de-listing. The signatories of this letter request that the comment period remain open until all documents have been received and reviewed.

Population Concerns

The foundation of wildlife biology is understanding the population ecology of a species and its habitat. In the absence of population data the utmost caution must be observed in considering any action they may directly impact a species or its habitat.

The proposed rule states that de-listing is justified because of “an increase in the number of individual squirrels” (proposal at 75924). At the time of listing, ten squirrels were known at four sites; between 1985 and 2005 there were 1,141 captures at 107 sites (proposal at 75926). An unknown portion of the captures were recaptures, thus the 1,141 captures do not represent 1,141 squirrels. The population size was not known or estimated at any point between 1985 and 2005. These data do not in any manner support the Service’s assertion that the population has increased since 1985, nor has the Service

provided any additional data to support the strange assertion. The only valid conclusions one can draw about WVNFS populations trends are 1) the population size is not known now or at any time between 1985 and 2005, 2) the 1985 to 2005 population trend is not known, 3) the current population trend is not known, 4) some capture sites have been used relatively continuously since 1985, some have been used sporadically, some have been abandoned, and many are lacking in sufficient data to determine whether use has been consistent, sporadic or abandoned between 1985 and 2005, and 5) the Service has completely dropped the ball on WVNFS monitoring, having consistently failed over a 20-year period to fund or establish demographically useful surveying methodology.

A recent analysis of all federally listed species in eight northeast states determined that all had persisted and 93% had increased in size or remained stable since listing (Suckling 2006). Under the proposal's "persistence" criteria, all of them should be removed from the endangered species list. Some such as the piping plover, roseate tern, and green sea turtle have done considerably better than persist, they have dramatically increased in size, yet none have been proposed for de-listing because, unlike the case of the WVNFS, the Service is requiring that the species meet scientific recovery criteria established in recovery plans. The Service's procedure in this case is to ignore the recovery plan and proceed to de-list in the absence of any explicit recovery criteria based on the nearly meaningless and poorly defined concept of "persistence." This clearly violates the Endangered Species Act requirement that the Service scientifically demonstrate the species is recovered.

Data Analysis of Captures from Field Reporting Forms for WVNFS

To further clarify the number of endangered squirrels captured as stated in the Fish and Wildlife Service's proposed rule, we analyzed data from a digital database of squirrel captures provided by the West Virginia Department of Natural Resources from 1988 through 2006. This data analysis concluded there were a total of 1,199 captures during this time period with only 79 recaptures. However, there were some 327 captures that did not include any information about ear tag numbers placed on captured squirrels with no clear reason for this lack of information. These 327 records represent a distinct anomaly in the capture data that seemed to indicate that there may have been as few as 793 unique captures.

Due to this and several other inconsistencies within the data source we obtained copies of the actual field reporting sheets from the West Virginia Department of Natural Resources office in Elkins, West Virginia in order to try to further understand these and other inconsistencies in the capture data.

Data from available field capture forms was then entered into an Excel Spreadsheet. A total of 1,233 documents representing research from years 1985 to 2006 were entered for assessment. As a means of trying to keep the information as accurate as possible,

forms that were illegible (in part or whole), forms that were duplicates of others, as well as type written forms that appeared to be summary in nature but lacked definitive information were excluded for the purpose of data analysis. After excluding data that fell into those categories, capture data was assessed for some 1,147 separate events.

Upon review of the capture data, 104 events had been recorded as recaptures and 114 events were recorded as unknown. For the purpose of analysis it was assumed that unknown meant it was not possible for any number of reasons to determine whether the animal had been captured in previous field studies. This led to the determination (based solely on the exclusion of captures recorded as recaptured or unknown) that only 929 events remained as possible unique captures.

Further analysis of the data included assessment of the assignment of tag numbers during capture events. During 275 captures the animal was not tagged. Reasons for the lack of tagging ranged from escape of the animal to “not applicable”. These 275 events also included several nestlings that were not tagged at the time the data was recorded. Without tagging of these animals on initial capture it cannot be known if they were ever recaptured. Analysis of the data from these 1,147 captures presents several inconsistencies in the actual collection of the field data.

To summarize, analysis results show 114 events where initial capture or recapture was unknown; 275 instances where a tag number was not assigned to an animal; and 104 events that were definitively recaptures. When these numbers are considered, unique squirrel captures over the last 21 years may only number 654 individuals. Considering that the squirrel only has an average life span of four years this is a very small number indeed.

Ecological Issues

In examining the Fish and Wildlife Service’s Five-Year Review of the status of the squirrel on which the proposed delisting rule is based, one anticipates an extensive review of current literature related to the WVNFS alongside results of independent research performed by the agency, supported by expert opinions. Instead one encounters a synthesis of some current and relevant information alongside numerous unfounded assertions. Also troubling is the use and indeed heavy reliance on unpublished, non-peer reviewed science such as Menzel 2003. Instead of a comprehensive and objective review of the status of WVNFS, the Five-Year Review fails to address relevant ecological information and basic principles of conservation biology. In an effort to correct these deficiencies we present some of the ecological issues that are ignored by the agency.

- ❖ The WVNFS has been documented and is known to inhabit deciduous forests at lower elevations and should not be considered an obligate to spruce fir forests.

- ❖ The WFNS is typically considered to inhabit forests with older growth characteristics such as an all-aged forest structure, vertical diversity, down woody debris, and a high level of diversity of plants, animals, fungi, mosses, and lichens. Although the WVNFS is associated with this habitat it can exist across a broad range of forest habitats but needs forests with older growth conditions in enough places across its range to persist.
- ❖ Protecting only old growth spruce forests will not ensure the protection of northern hardwoods. Northern Hardwoods communities must also be protected in reserves of sufficient size. Without knowing the spatial needs of the WVNFS it is presumptuous to assume that just protecting small portions of forest will be sufficient to recover the species.
- ❖ It is essential to not only maintain reserves of spruce and northern hardwoods but also to retain their connectivity across the landscape. Any loss of connectivity via road building, large-scale logging, etc. should be considered as a substantial threat that has not been abated at the scale appropriate to recover the species. Studies indicate that roads can have major impacts to the ability of flying squirrels to move across the landscape (Weigl et al. 2002).
- ❖ Other forest health issues that compound the threats to the WFNS include: the loss of Eastern Hemlock to the Hemlock Woolly Adelgid, the loss of Fir to Balsam Woolly Adelgid, the loss of Beech due to Beech bark Disease, and the impacts of Oak Decline in northern hardwood communities. Even if it were true that all threats at the time of listing the WVNFS have been abated (which they most certainly have not) there are new threats which are growing that may have untold consequences for the WVNFS. De-listing this species now would strip away the protections offering it the best chance for survival.

Red Spruce

Role of Spruce in Boreal Habitat

High elevation spruce in the Southern Appalachians is a relict of widespread spruce occurrence during the Pleistocene. However, spruce is just one component of this habitat. The proposed de-listing and the modeling on which the de-listing proposal relies focus on spruce to the exclusion of other components of boreal habitat. It is simplistic to imagine that spruce and elevation by themselves determine preferred habitat for *G. sabrinus fuscus*.

Habitat Age-Class and the Squirrel

One of the most consistent factors associated with *G. sabrinus fuscus* is older growth trees and old growth conditions. This should be a primary focus of recovery efforts. However, this is in direct opposition to efforts to “restore” spruce forests, as this is likely

to involve harvesting mature tree to be replaced with new regeneration. Even if spruce regeneration is successful, which is highly unlikely under a climate change scenario, these immature trees are unlikely to provide good habitat in any foreseeable future.

Food Sources

The use of food sources by *Glaucomys sabrinus fuscus* is critical to an understanding of their habitat use. One study of the *G. sabrinus fuscus* fecal pellet contents, done by Donna Mitchell of the WV DNR in 1998 gives us some insight into what the squirrel eats. Entitled “Spring and Fall Diet of the West Virginia Northern Flying Squirrel” it was published by the American Midland Naturalist in 2001. The pellets studied were collected from 115 captured squirrels from 1989 to 1991 in the spring and fall. No information was collected for winter and summer food sources. The spring samples show equal consumption of buds from red spruce and beech trees and fungus associated equally with both conifer and broadleaf trees. In the fall, fungi were more widely eaten, as were beechnuts. Lichen and mosses were also found in the samples. This small study supports the contention that the squirrel forages in both northern hardwood and conifer habitat and is not limited to red spruce forest types.

Model Used to Plan Management is Flawed

Over simplistic models of habitat requirements cannot be used solely to justify the de-listing of the WVNFS. The interpretation of this information has led the FWS to draw conclusions on the ecology of WVNFS and its population that are unsubstantiated. The de-listing proposal for *Glaucomys sabrinus fuscus* is heavily based on habitat modeling (Menzel, 2006). While this modeling is useful as an interesting addition to characterizing *G. sabrinus fuscus*, the study should not be promoted as definitively characterizing the habitat of *G. sabrinus fuscus*. The model contains untested assumptions, is based on limited data, is a simplified model that does not account for important variables in the species’ biology, and remains an unverified and untested model. The model is also being applied outside of its intended scope and for purposes that are not supported by the study that the model is based on.

Threats to squirrel from second home and energy development, logging, road building, and climate change

Road building, mining, gas development, industrial wind and second home development are all increasing and pose significant threats to the WVNFS due to habitat fragmentation and removal which the Fish and Wildlife Service ignores.

Threats to the squirrel from logging continue on both private and public land. While the Monongahela National Forest claims to have protected the squirrel from logging under their old and new management plans, they in fact allow logging in all hardwood stands occupied by the squirrel as well as logging in mix hardwood and conifer stands to encourage red spruce to dominate the canopy. They also allow logging to thin red spruce

stands. The Fish and Wildlife Service's claim that the Forest Service's management plans protect the WVNFS has never been substantiated.

There is a strong scientific consensus that spruce-fir forests will disappear from the Southern and Central Appalachians (and probably the United States) under even the most conservative global warming models. While some components of the northern hardwood forest will likely remain in the region, it will likely cease to function as a discrete ecological community. This will likely result in the extinction of the WVNFS. In the medium term (i.e. next 100 years), global warming is probably the greatest threat to the squirrel's existence, yet the de-listing proposal provides only a cursory glance at the issue. This violates the Endangered Species Act requirement to employ the best available scientific information in making de-listing decisions. The proposal's passing reference, moreover, is miscited, misinterpreted, and relies on criteria disallowed by the Endangered Species Act. The final decision must provide a thorough review of the large body of published scientific studies examining the likely impact of global warming on the WVNFS and its habit. (See attachment III)

Experts Excluded from Process

Research professors Dr. Peter Weigl and Dr. John Pagels, who were on the Appalachian northern flying squirrel Recovery Team and had developed much of the methodology to carry out the recovery goals, were not invited to work on the de-listing process. They were not told that de-listing was being considered, only downlisting. Their years of research would have been invaluable to the Fish and Wildlife Service personnel working on the Five Year Review of the West Virginia northern flying squirrel. However, they were not consulted and much of their research was not used. Dr. Weigl made clear in his comments submitted for this comment period that he is opposed to de-listing *Glaucomys sabrinus fuscus*. Dr. Pagels raised a number of important concerns about de-listing as well

Conclusions and Recommendations

We believe that the Fish and Wildlife Service has no scientific basis for de-listing, let alone downlisting to threatened the WVNFS. We believe that the shoddy work revealed in the proposed rule to de-list and the Five Year Review show an attempt by the current administration to move away from the hard science of recovery plan criteria and to de-list any species that has become a bother. This proposal has undermined the public's confidence in the scientific work of the Service. We ask this committee to demand that the Service convene a blue ribbon panel of independent scientists to review this proposal and the data that it is based on and come up with a new plan for the WVNFS that will ensure its protection into the future. Without such a plan it will not "fly solo" but come crashing to the ground and glide into extinction.