

**I**t's hard to understand how the Endangered Species Act (ESA) works because it seems to make no sense at all. The system seems designed to confuse the public and allow government agencies to consider almost anything they want for the ESA. The key thing to remember is that species, subspecies, distinct population segments (DPS), and evolutionarily significant units (ESU) are considered as separate species under the ESA. This allows government agencies arbitrarily to designate endangered species that are not species. It is critical to understand the incredible power these terms give the federal government.

By way of background, it is widely recognized among biologists that subspecies are usually arbitrarily designated. In many cases designations are little more than opinion over what level of differences constitutes a subspecies. Examples of indistinct subspecies include the Preble's meadow jumping mouse and the northern spotted owl. Distinct population segments are populations that can be listed under the ESA.

Criteria for designating a DPS include discreteness of a population, and a population may be considered discrete if it is "markedly separated" from other populations. Markedly separated is not defined, so DPS are subjective too. Examples of DPS include the grizzly bears, wolves, and lynx in the United States (outside Alaska).

Evolutionarily Significant Units are so arbitrary that they have two different definitions in the scientific literature. The definition of ESU that has been applied to Pacific salmon says that an ESU represents "an important component in the evolutionary legacy of the species." It's not clear what this means, but such ESUs are considered DPS under the ESA. An example of an ESU is the salmon in the Klamath River. For those interested in the technical aspects of this, see my paper in the *Wildlife Society Bulletin*.<sup>(1)</sup>

Considering all this, I hope to provide some relief from the stresses of the ESA on the agricultural and forestry communities. Because outside review and criticism of the arbitrary ESA species terms seems to be

# EIEIO

*Old MacDonald would have known how to fix  
the Endangered Species Act.*

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COYOTE HOWLING © TOM STACK/TOM STACK & ASSOCIATES

ignored by bureaucrats and judges, I thought some farm-oriented humor might help make the point. I decided that another term might also be easier for you to remember. My proposed term is:

Evolutionarily Interesting and Ecologically Important Organisms (EIEIO). Forget the big words: you only need to remember the initials—EIEIO. I find I can hum EIEIO and make it a lot easier to remember than DPS or ESU. (The only problem I see with the EIEIO is the issue of sounds. We all know "moo moo here, bah bah there, oink oink everywhere"—those are easy. But now we'll have to figure out sounds for salmon, owls, and bears! More research projects for us biologists!)

The beauty of the EIEIO is that it's basically like a subspecies, ESU, or DPS, in that it

is a population of fish or wildlife that occurs in some geographic area. The words "evolutionarily interesting and ecologically important" don't really mean anything, but neither do the government terms DPS and ESU. If they can invent terms, I figure I can too.

What distinguishes an EIEIO from other groups of animals? Recall that only Pacific salmon are designated ESUs, and other groups considered under the ESA are designated as either a subspecies or a DPS. Therefore, the EIEIO will copy the ESU concept and apply only to certain fish and wildlife populations—*those on farms and other agricultural land*.

If ESUs are only for Pacific salmon, EIEIOs are only for agricultural land. Because forestry is traditionally considered a form of agriculture, the EIEIO concept will apply to forests as well as farms, ranches, and other agricultural facilities. EIEIOs will typically occur on private lands, but public forest- and rangeland with current or potential livestock grazing or harvesting of living resources (any plants or wild animals) can also qualify as agricultural land.

Here are the important differences between EIEIOs on the one hand, and subspecies, ESUs or DPSs as currently used in the ESA on the other:

On private property, EIEIOs (unlike subspecies, DPSs, or ESUs) will only be designated and managed in accordance with the rights and full approval of the landowner. Whereas the ESA uses subspecies, ESUs and DPSs to allow the government to take private property and water rights without compensation (or even a thank you), the use of EIEIOs will not.

When an EIEIO is identified, the following protocol will be followed:

- The EIEIO will be described with available information (location, appearance, habitat, food habits, genetics, etc.). If limited information is available, it will be good enough, and expensive, inconclusive studies will not be required or requested.

- The landowner can be asked what his management objectives are, and if he/she wishes to divulge them, they will be respected as the final word on the use of



Grizzly bear in the wilds of Alaska. OPPOSITE: Coyote howls, probably singing for Old MacDonald, trying to impress activists and feds.

his/her property.

■ If a government agency deems the EIEIO of value to the public, it will contact the landowner, and cite the 5th<sup>(2)</sup> and 10th<sup>(3)</sup> Amendments to the U.S. Constitution, to inform the landowner of his/her rights and the limits to his/her federal authority. Local authorities will be informed of the situation to assure their citizens' rights are not violated by federal agents.

■ The government agency people will then politely ask if the landowner would like them to help manage the EIEIO on his/her land. The government will offer funds, advice (e.g., information on habitat or other ways to improve conditions for the EIEIO), or free physical labor for projects to improve conditions for the EIEIO. The government agency will readily acknowledge that the landowner already pays them through his/her taxes.

■ If the landowner does not want to manage the EIEIO, he will be left alone with the good wishes of his/her government employees.

On public land, EIEIOs (unlike subspecies, DPSs, or ESUs) will be managed according to multiple-use objectives. Uses other than habitat for the EIEIO, such as timber harvest, livestock grazing, mining, oil and gas extraction, hunting and fishing, can be pursued to achieve a vibrant, managed landscape. When an EIEIO is on public land the following protocol will be followed:

■ The EIEIO will be considered one resource among other equally legitimate resources.

■ The government agency managing the public land will find ways to accommodate multiple-use management or it will be replaced by private contractors with financial incentives to do so. This will often be agricultural/forestry experts on neighboring private lands.

We can expect resistance to my proposed terminology and its use by government agencies which have become accustomed to using subspecies, DPS, and ESU. However, what matters are the views of our elected officials

and their constituents, and adherence to constitutional principles. Use of the EIEIO concept will help restore strong constitutional rights for citizens and protection of private property.

So the next time you have to deal with an "endangered" ESU, DPS or subspecies, let them you think it's really an EIEIO. Let them know that you know their terms are scientifically arbitrary, and you can use your own with equal validity. Then give them the guidelines above, and remind them that we are a government of, by, and for the people. ■

(1) Cronin, M. A. 2006. A Proposal to eliminate redundant terminology for intra-species groups. *Wildlife Society Bulletin* 34:237-241.

(2) 5th Amendment to the U.S. Constitution: "nor shall private property be taken for public use without just compensation."

(3) 10th Amendment to the U.S. Constitution: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."