

TOP 10 NOMINATION FORM

2020 Topic: Illegal wildlife (plants and animals) trafficking and unsustainable trade

Species must meet these qualifications:

- Must be native U.S. species or international species with significant U.S. demand
- Must be experiencing substantial decline (do not have to be threatened/endangered listed)
- Must be directly or indirectly impacted
 - Direct: exploited as trophies, pets, medicines, etc.
 - Indirect: impacted by imported exotics or imported disease vectors (e.g., chytrid)

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Nominated Species (Common Name & Scientific Name): American ginseng (*Panax quinquefolius*)

Question 1: Threat to the Species

How is the species and/or its habitat threatened by illegal wildlife trafficking and/or unsustainable trade? Note the extent of the threat and whether it is direct or indirect. Include references to relevant scientific studies. Does the species face any associated political threats?

American ginseng is native to deciduous forests of 19 states in the midwestern and eastern United States, primarily in the Appalachian and Ozark regions. It also occurs in eastern Canada. It is also grown on ginseng farms. It has long been used for medicine, originally harvested by many different Native American tribes and used in Asian medicinal products. According to the [Fish and Wildlife Service](#) Ginseng root is exported in larger volumes than any other native CITES plant species.

In the early days of the American ginseng trade, ginseng was abundant throughout much of the deciduous forest in the eastern United States. Unfortunately, [it has dramatically declined throughout much of its range, as prices have soared to as much as \\$1000 per pound](#). [Recent studies](#) have shown that ginseng is currently facing threats from wild harvest, habitat destruction, herbivory, and climate change. The pressure of poaching is also causing ginseng roots to be significantly smaller at maturity, according to [data published in the journal Biological Conservation](#).

In 1975, American ginseng was listed as a CITES Appendix II Species, which empowered the U.S. Fish and Wildlife Service to regulate its trade. It is classified as “vulnerable” (G3) by [NatureServe](#) and has been given imperiled status in some states. It is listed as Endangered in the [state of Maine](#) and as [rare to uncommon in Maryland](#), for example. For other legal statuses of this species, see the [PLANTS database](#).

In Minnesota, this species had been widespread in the state of Minnesota within its habitat range. It is now extremely rare in the state due to regulated and unregulated harvesting/removal by so called diggers. These diggers sell directly to overseas markets with little to no oversight by the State of Minnesota. Any digging activity is supposed to be regulated by the Minnesota Department of Natural Resources. That has not been happening and the state-wide population is now with no question threatened.

Question 2: Role of the Species

What is the ecological and/or scientific importance of the species? Note if it is a keystone species and describe its role in its environment. Include references to relevant scientific studies.

This plant species has medicinal value in Asian culture, economic and cultural value in Appalachia, ecological value as part of a healthy forest understory, and potential value for mainstream medicine. The prominence of this understory plant has led to its use as a “[phytometer](#)” to better understand how environmental changes are affecting the diverse temperate flora of eastern North America.

This species had been quite widespread in the Eastern Broadleaf Forest Province of Minnesota. The decline of this species ultimately affects the overall diversity of our flora. American ginseng is part of our natural heritage and is an important understory herb.

American ginseng has also been an import plant to the indigenous peoples of eastern north America.

Question 3: Message

What is the most important message about this species for decision-makers and the public?

Biologist and attorney Katrina Outland, who has [proposed changes to the laws](#) protecting plants from poaching, notes that “[w]hat sets the problem of plant poaching apart from the more well-known crimes of wildlife poaching is the fact that the law tends to value plants less than animals.” Federal laws such as the Endangered Species Act as well as state species conservation laws should equally protect imperiled plants and animals. The [Native Plant Conservation Campaign’s Equal Protection for Plants Project](#), proposes equal protection under the federal Endangered Species Act.

Much of ginseng poaching is driven by the desperate poverty that plagues the Appalachian region. Outland has [called for](#) stiffer penalties for dealers in poached plants, as opposed to

front line poachers, in order to more equitably distribute penalties for poaching along the supply chain, and to reduce dealer demand for wild poached plants.

In 2017, a [conference was held in Virginia](#) to address the management of declining populations of ginseng and other medicinal plants. The conferees developed recommendations for improved ginseng conservation. The recommendations focused on improved enforcement of existing laws and increasing fines and other penalties for poaching. In Great Smoky Mountains National Park, where ginseng cannot be harvested legally, rangers use sophisticated methods to mark ginseng roots. They use [multicolored powder that has tiny GPS chips in it](#), so that officials can determine that roots were collected from a prohibited area —a key piece of evidence for court cases.

In Minnesota, this species is listed as a species of Special Concern, a status that warrants no actual protection in Minnesota. It is the position of the Minnesota Native Plant Society that the status should be changed to threatened. The MN Department of Natural Resources is currently unwilling to change the status, even though most of the previously documented populations have been removed entirely by diggers. Conservation is taking a backseat to the political interest of the Minnesota Department of Natural Resources as well as the minimal unregulated financial gain by a small consortium of diggers.

Some have called for increased cultivation of ginseng on private lands, so called “conservation through cultivation” to create a more sustainable supply of the plant.

Final Selections

If my nomination is selected for inclusion in the report, I would like the first draft of the species profile for the report to be written by (choose one):

X You (ESC), and then my NGO will edit the profile and approve the final draft.

 Me (my NGO). I understand that I (and other participating writers) will need to adhere to ESC’s writing guidelines.

Deadline: May 8, 2020

Send to: top10@endangered.org