vulnerability and threats are not currently known or on file to support the preparation of rules.) The Service funded surveys in 1989 in order to determine the status of *Arabis* perstellata var. perstellata in Kentucky. The contractors conducting the status survey for *Arabis* perstellata var. perstellata var. perstellata included a review of *Arabis* perstellata var. ampla in Tennessee. Final reports on these surveys were accepted by the Service in 1991.

All plants included in the comprehensive plant notices are treated as under petition. Section 4(b)(3)(B) of the Act, as amended in 1982, requires the Secretary to make certain findings on pending petitions within 12 months of their receipt. Section 2(b)(1) of the 1982 amendments further requires that all petitions pending on October 13, 1982, be treated as having been newly submitted on that date. This was the case for Arabis perstellata var. ampla and Arabis perstellata var. perstellata because of the acceptance of the 1975 Smithsonian report as a petition. From 1983 through 1990 the Service found that the petitioned listing of both varieties was warranted but precluded by higher priority species. In 1990, it was determined that listing of Arabis perstellata var. ampla was not warranted because data on distribution, vulnerability, and threats were incomplete. Status survey information received by the Service in 1991 completed these informational gaps and was sufficient and conclusive enough to support the proposed listing of *Arabis* perstellata var. ampla and Arabis perstellata var. perstellata published in the Federal Register of January 3, 1994 (59 FR 53). The proposed listing represented the final petition finding for the large and small rock cresses.

Summary of Comments and Recommendations

In the January 3, 1994, proposed rule, and through associated notifications, all interested parties were requested to submit factual reports and information that might contribute to the development of a final rule for the rock cress. Appropriate Federal and State agencies, county governments, scientific organizations, and interested parties were contacted by letters dated January 20, 1994. Legal notices were published in the "Frankfort State Journal" (Frankfort, Kentucky) on January 23, 1994 and in the "Daily News Journal" (Murfreesboro, Tennessee) on January 21, 1994.

Four written responses were received on the proposed rule to list rock cress. One Federal agency, one State agency, and two individuals provided comments.

The U.S. Soil Conservation Service, Nashville, Tennessee, responded by stating they have "no projects which might affect the species proposed for listing."

The Kentucky State Nature Preserves Commission and one individual from Kentucky (who owns land that supports the species), supported the listing of the typical variety. Neither commented on the large rock cress.

One individual opposed the listing because "The Fish and Wildlife Service is intruding into an area in which it certainly has no moral or legal authority-private property." The Service response is that the Act does not allow the Service to use land ownership as a factor in determining whether a species should be placed on the **Endangered and Threatened Species** List. The Act requires that a decision to list a species be based solely on biological data. Further, listed plants receive very little formal protection on private lands. For the most part they are only protected on Federal lands or through section 7 of the Act (consultation with other Federal Agencies).

The same individual also stated that ". . . you (the Service) present hypothetical scenarios of what timber harvest might do to the resources and the area subject to timber harvest. All of your arguments are based on conjecture and supposition with little or no scientific data. The areas in question have undergone severe natural and mancaused changes in biodiversity over the past 200 years of European occupancy. Yet, after all that has occurred, the species under consideration persist.' The Service believes that, based on the biology of the species, timber harvesting would impact the species. Not only could the species be affected by direct impacts such as heavy equipment, but because we know the species does not survive in full sunlight, removal of trees would likely have a detrimental effect. Further, timber harvest is only one of several threats to this species (see "Summary of Factors Affecting the Species" section of this rule). The Service agrees that the areas in question have undergone considerable "biodiversity" changes over the past centuries since European settlement. However, while it is not possible to say to what degree this species has become more or less abundant since that time, populations are known to have been lost and remaining populations continue to be threatened. There are many examples of species that have been reduced in number since European settlement,

many of which have become extinct. The Service believes that without the protection afforded by the Act, this species would likely follow the same course.

The individual further stated that "The scientific community, and the Service in particular, need to recognize that extinction has always been a continuing process and will continue to be so." The Service agrees that extinction is a natural process. Extinction naturally occurs as species adapt (evolve) or don't adapt (become extinct) to a changing environment. However, the present rate of extinction, by some estimates, is as high as 1,000 times the "normal" extinction rate, with virtually all of the extinction being attributable to human induced environmental changes. A species being eliminated by processes such as road building or other man-made factors is far different from a species being unable to adapt to a naturally changing environment. Even so, the Act does not make distinctions in this regard. A species may be listed due to either natural or manmade factors that affect its continued existence.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the rock cress should be classified as an endangered species. Section 4(a)(1) of the Act and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act were followed. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in Section 4(a)(1). These factors and their application to *Arabis perstellata* E.L. Braun (rock cress) are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range

Arabis perstellata var. perstellata—Of the 27 known populations of small rock cress, 17 are threatened with destruction or adverse modification of their habitat. Eight are threatened by weedy competitors, four by weedy competitors and trampling, two by trampling, one by logging, and two by road work (one population was severely impacted by road work during the period the species was proposed for listing). The remaining 10 populations do not appear to have any immediate threats but are vulnerable to the aforementioned threats as well as other habitat alterations and potential inbreeding problems as neighboring populations decline. Active