

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AB38

Endangered and Threatened Wildlife and Plants; Final Rule To Determine *Lesquerella Congesta* (Dudley Bluffs Bladderpod) and *Physaria Obcordata* (Dudley Bluffs Twinpod) To Be Threatened Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service determines two plants, *Lesquerella congesta* (Dudley Bluffs bladderpod) and *Physaria obcordata* (Dudley Bluffs twinpod) from Rio Blanco County, Colorado, to be threatened species under the authority of the Endangered Species Act of 1973, as amended. Both members of the mustard family, these species have been found only in or on the outer edge of the Piceance Basin in Colorado. Both species grow on oil shale outcrops. These species are known from five major populations each, two of which occur together. Most sites are on public land administered by the Bureau of Land Management, with the remainder located on private land or Colorado Division of Wildlife land. Within the Piceance Basin, the two plants occur in the multimineral oil shale zone, an area containing rich deposits of oil shale and sodium minerals (nahcolite and dawsonite). If project designs for development of these deposits do not include plans for conservation of these two mustards, both species could be significantly impacted. The determination that *Lesquerella congesta* and *Physaria obcordata* are threatened species will provide them protection under the authority of the Endangered Species Act of 1973, as amended.

EFFECTIVE DATE: March 8, 1990.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Colorado State Supervisor's Office, Fish and Wildlife Enhancement, 730 Simms Street, Room 290, Golden, Colorado 80401, and at the Western Colorado Fish and Wildlife Enhancement Office, 529 25 1/2 Road, Suite B-113, Grand Junction, Colorado 81505.

FOR FURTHER INFORMATION CONTACT: Mr. John Anderson, botanist, Fish and Wildlife Enhancement, at the Grand

Junction address above, (303) 243-2778 or FTS 322-0351.

SUPPLEMENTARY INFORMATION:**Background**

Two new species of wild mustards, *Lesquerella congesta* (Dudley Bluffs bladderpod) and *Physaria obcordata* (Dudley Bluffs twinpod), were discovered in 1982 during a floristic inventory of the Piceance Basin conducted by the Colorado Natural Heritage Inventory for the Bureau of Land Management (Bureau)(Colorado Natural Areas Program 1987). An earlier collection of *L. congesta*, unrecognized as such, was made in 1959. They were subsequently described by Dr. Reed Rollins, an expert on the mustard family, who visited the Piceance Basin and observed them at Dudley Bluffs in 1983 (Rollins 1983, Rollins 1984). With the exception of the recently described *Penstemon debilis* (O'Kane and Anderson 1987), these two herbaceous perennials are the rarest of several oil shale plant species in the Piceance Basin.

L. congesta is an extremely small cushion plant only 1-3 centimeters (0.4-1.2 inches) in diameter with fruiting stems up to 1.5 centimeters (0.6 inches) tall. The cushion growth habit is an adaptation to erosive badland soils, which has evolved independently in several unrelated taxa in this area. *L. congesta* has small, linear, entire, silvery leaves 8-13 millimeters (0.3-0.5 inches) long, bright yellow flowers, and rounded, pubescent fruits 2.5-3.5 millimeters (0.10-0.14 inches) wide.

P. obcordata is 12-18 centimeters (4.8-7.2 inches) tall with oblanceolate, entire leaves 1.0-1.5 centimeters (0.4-0.6 inches) wide and 4.0-8.0 centimeters (1.6-3.8 inches) long, with a silvery sheen due to a dense covering of overlapping, dish-shaped trichomes. It has yellow flowers, 7-9 millimeters (0.3-0.4 inches) long, and slightly inflated, heart-shaped (obcordate) fruits.

These two rare mustards grow on barren white outcrops exposed along drainages through erosion from downcutting of streams in the Piceance Basin. Each species, however, has a slightly different microenvironment. While the twinpod grows on steep sideslopes, the bladderpod grows above it on level surfaces at the points of ridges; the bladderpod also occurs by itself where narrow outcrops of level white shale are exposed. Because more sideslope habitat is available (for instance, there is no ridgepoint habitat at Calamity Ridge), the bladderpod is the rarer of the two species.

The strata exposed in the Piceance Basin are derived from the Eocene

Green River and Uinta Formations (Cashion and Donnell 1974). The rich, oil-shale-bearing Green River Formation formed as a lacustrine deposit in Lake Uinta, forming fine-textured shale. Later, Lake Uinta filled with sand and silt deposits, which formed the coarser-grained overlying Uinta Formation. Thus, the surface of the Piceance Basin is filled with the Uinta Formation above and the thick shale beds of the Parachute Creek member of the Green River Formation below. The shale rims of the Piceance Basin, such as Calamity Ridge, are formed from upturned strata of the Green River Formation.

At the interface of the two formations, in the middle of the Piceance Basin, the lakebed Green River Formation shale intertongues with the deltaic and fluvial sandstones and siltstones of the Uinta Formation. For instance, at Dudley Bluffs, the type locality of the two species, the ridge and hillside supporting the bladderpod and twinpod is formed by strata of Unit 5 of the Uinta Formation on the top and Unit 4 at the base, with the Thirteen Mile Creek Tongue of the Green River Formation on the midslope where the twinpods grow. The bladderpod only occurs at or near the end of the ridge where erosion has removed the overlying Unit 5 from the point as the ridge recedes. Along Yellow Creek, the Dudley Bluffs bladderpod and twinpod grow primarily on other narrow tongues of white shale within the Uinta Formation, whereas at Calamity Ridge the twinpod grows on outcrops of the Parachute Creek Member of the Green River Formation. Elevational ranges for these species are 1,860-2,010 meters (6,140-6,644 feet) for *L. congesta* and 1,806-2,255 meters (5,960-7,440 feet) for *P. obcordata*. The surrounding hills and mesas support pinyon-juniper woodlands.

In 1986, the Colorado Natural Areas Program followed up on the 1982 inventory by conducting field work on *P. obcordata* to determine its rarity and range (Colorado Natural Areas Program 1987). Sites of *L. congesta* were delineated at the same time. During this survey, populations of both species were found for the first time along Yellow Creek, the next drainage west of Piceance Creek and about 5 miles away. The largest known populations of both species, approximately 10,000 individuals each, were discovered growing together at the junction of Piceance Creek and Ryan Gulch, 2 miles north of Dudley Bluffs. Between the 1982 inventory and the 1986 survey, all major drainages in the Piceance Basin were surveyed. Both species were found only along Piceance and Yellow Creeks, and

the twinpod at Calamity Ridge. During the 1988 field season, the author visited all the wild mustard sites and more precisely delineated their geological habitat.

L. congesta has five populations on approximately 50 total acres over a range of 10 miles. *P. obcordata*, which occurs on outcrops further upstream on Piceance Creek and downstream on Yellow Creek, has a range of 15 miles, plus the two populations on Calamity Ridge, for a total of five major populations on approximately 250 acres. However, the Dudley Bluffs and Ryan Gulch sites, which are only 2 miles apart, contain most members of the species.

The Dudley Bluffs bladderpod and twinpod occur mostly on land administered by the Bureau, with the exception of portions of the Dudley Bluffs site on private land (containing twinpod) and a portion of the Yellow Creek sites on Colorado Division of Wildlife land (containing bladderpod). The Bureau has designated the Federal portions of the Dudley Bluffs site and one of the Calamity Ridge sites as Areas of Critical Environmental Concern (Bureau of Land Management 1987a).

L. congesta and *P. obcordata* grow on tongues of white Green River shale within the overlying Uinta Formation, which is considered overburden to the thick underlying oil shale deposits. Except for the Calamity Ridge sites, all the occurrences are within the multiminerall oil shale area. Beneath the overburden of the surface Uinta Formation, this area at the center of the Piceance Basin contains thick, rich sections of oil shale in the mahogany zone and the sodium minerals nahcolite (sodium bicarbonate) and dawsonite (a potential source of alumina) in the underlying saline zone. *L. congesta* and *P. obcordata* are vulnerable to impacts resulting from future development and extraction of these oil shale minerals and associated activities.

Federal action involving these species began on September 27, 1985, when the Fish and Wildlife Service (Service) published a notice of review in the *Federal Register* (45 FR 39526) covering plants being considered for classification as endangered or threatened. *L. congesta* and *P. obcordata* were included in this notice as Category 2 species. Unfortunately, *L. congesta* was erroneously listed as *L. condensata*, a common species. Category 2 comprises taxa for which information now in possession of the Service indicates that proposing to list them as endangered or threatened species is possibly appropriate, but for which substantial data on biological

vulnerability and threats are not currently known or on file. The present proposal is based on more current biological data from the Colorado Natural Areas Program (1987).

Section 4(b)(3)(B) of the Endangered Species Act (Act) (16 U.S.C. 1531 *et seq.*), as amended in 1982, requires the Secretary of the Interior to make findings on certain petitions within 1 year of their receipt. All taxa contained in the 1985 notice, including *L. congesta* and *P. obcordata*, were treated as being petitioned on October 11, 1985. In October 1986, October 1987, and October 1988, the Service made the 12-month finding that the petition to list *L. congesta* and *P. obcordata* was warranted, but precluded by other listing actions of higher priority. The Service published a proposed rule to list *L. congesta* and *P. obcordata* as threatened species on January 24, 1989 (54 FR 3499), constituting the next 12-month finding that would have been required on or before October 7, 1989.

Summary of Comments and Recommendations

In the January 24, 1989, proposed rule (54 FR 3499) and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. Appropriate State and Federal agencies, county governments, scientific organizations, and other interested parties were contacted and requested to comment. A public hearing was requested by the Rio Blanco County Board of Commissioners (County) and by the Associated Governments of Northwest Colorado on March 9, 1989. On March 28, 1989, the Service published a notice (54 FR 12663) extending the initial comment period to April 26, 1989, to accommodate the requested public hearing which was held on April 13, 1989, in Meeker, Colorado. Newspaper notices announcing the public hearing and the extension of the comment period were published in the Meeker Herald on April 6 and 13, 1989, and in the Rocky Mountain News on April 6 and 7, 1989. At the hearing, a Service botanist read a prepared statement and showed slides of the plants and their habitat. Individuals in the audience were then given the opportunity to present their oral comments. Following the comments there was a question and answer period. Two dozen people attended the public hearing and six presented oral comments. Nine written comments also were received in response to the proposed rule. The State Natural Areas Programs both commented at the public hearing and sent in a separate written

comment. Thus, there were 14 comments overall.

Six comments in support were received, including the State, conservation groups, a botany professor, and other interested individuals: six comments in opposition were received from a local (county) government, oil shale and nahcolite companies, and a consulting geologist; and two comments were neutral. Written and oral comments presented at the public hearing and received during the public comment period are covered in the following summary. Comments of similar content are grouped into a number of general issues. These issues and the Service's response to each are discussed below.

Issue 1: Oil shale and nahcolite companies questioned the observed rarity of the species. In their view, there was a possibility that the plants might be more common than currently known and, therefore, not qualify for threatened or endangered status. Their rationale was as follows:

First, there are large areas of oil shale outcrops outside the Piceance Basin in Colorado, Utah, and Wyoming that may contain the two wild mustards.

Second, the adequacy of knowledge of their range and, hence, rarity was questioned based upon an inadequate knowledge of their geologic habitat; therefore, they could occur elsewhere in other habitats.

Third, the adequacy of inventory for these species was questioned based on the amount of time spent and the large areas of the Piceance Basin to be covered.

Response: Based on the extensive evidence gathered to date, it is unlikely that these particular species of wild mustards will be found outside the Piceance Basin.

First, evolution in these genera is characterized by local endemism. Rugged topography and varied geologic substrates led to population isolation which, in turn, resulted in the evolution of localized species with restricted distribution, rather than several ecotypes of one common species. For example, other new species of twinpod have been described recently in Wyoming. Herbarium records for these genera in Utah and Wyoming were checked at regional herbaria and no specimens and, hence, no new locations were discovered.

Second, since the proposed rule was developed, additional field work was conducted to more precisely characterize their geological habitat. This new data has been incorporated into the final rule. The two wild

mustards were found to have very specific, but slightly different, microhabitats within or adjacent to the Piceance Basin, as explained in the "Background" section. Most populations are contained within the center of the Piceance Basin where the Green River and Uinta Formations intertongue. The Calamity Ridge twinpod population, though not technically within the Basin, lies on the outer rim of the Piceance Basin.

Third, inventories for rare plants are stratified based on their specific potential habitat, i.e., areas considered likely to be potential habitat are thoroughly searched. This approach maximizes the probability of discovering new populations. Therefore, an inventory of the entire Piceance Basin was not necessary, only that portion characterized as potential habitat. Once the initial 1982 inventory was completed and results analyzed, those species determined to be the rarest, such as these wild mustards, were then made the specific subject of an inventory that was the basis for the 1987 status report. After both inventories, these wild mustards were still found to be rare species. Given the degree of search effort already expended, were new populations to be found in the future, it is unlikely that they would significantly alter overall population estimates or the conclusion that these are rare species capable of becoming extinct in the foreseeable future if protective measures are not undertaken.

Issue 2: The oil shale companies stated that there are no current threats to these species because there is no current oil shale mining occurring in the Piceance Basin.

Response: The proposed rule to list these species as threatened recognized planned oil shale development as being large scale, but not imminent. Because this development could potentially endanger these plants which were not protected under State or Federal law, the plants fit the definition of threatened species under the Act, i.e., species likely to become endangered within the foreseeable future throughout all or a significant portion of their range. It should be noted that new Federal subsidies for oil shale development have been proposed by Congressional committees for fiscal year 1990.

Issue 3: The oil shale companies stated that designating Areas of Environmental Concern for the plants on Bureau of Land Management Land while further inventories are being conducted would provide adequate protection.

Response: Although most of the wild mustard sites are located on Bureau

land, the designation of these areas as Areas of Critical Environmental Concern would still allow for multiple use without the degree of protection afforded a species designated as threatened under the Act. Management of these multiple uses, particularly those that might conflict with the protection of these rare plants, would require more vigilant management by the Bureau. For example, in the Yanks Gulch Area of Critical Environmental Concern containing the twinpod, significant impacts from livestock trampling were observed in 1988 by the author on the hillside where the twinpod occurs. Listing the species as threatened under the Act would provide greater protection through its requirement for section 7 interagency consultation, section 9 prohibitions against take, and recovery actions.

Issue 4: The oil shale companies stated that, since the plants are locally common (as stated in the proposed rule), the populations are healthy and there are no threats to them.

Response: Many rare plant species are characterized by locally abundant populations restricted to small areas of specialized habitat. The threat to plants with this pattern of rarity is the vulnerability of their small acreage, which could easily be impacted significantly by surface disturbance from many different causes.

Issue 5: One oil shale company expressed a concern about future recovery actions possibly affecting their operations (tract "C-A" on Bureau land).

Response: The Service has no plans at this time for recovery actions on the "C-A" oil shale tract. No populations occur on this tract, thus recovery activities will be carried out elsewhere.

Issue 6: The County stated that there was inadequate data in the status report on population ecology on which to base a listing.

Response: The standardized New York Botanical Garden format (Henifin et al. 1981) which was used for the status report differentiates between minimally necessary information and other additional data. Under that model, population ecology is considered additional, but not necessary, data. Adequate data has been collected on all necessary categories and the Service believes this data supports listing as threatened. One of the results of species listing tends to be collection of additional data, such as population ecology, in order to better understand the species and the limiting factors causing its rarity.

Issue 7: The County stated that scientific collecting of the plants in small populations could have more of an effect than development activities.

Response: As stated in the proposed rule, the Service does not know of any over-collection for scientific purposes. Fortunately, most populations are locally abundant and over-collecting has not yet posed a threat. Listing of the species will initiate the permit process that regulates the degree of collecting.

Issue 8: The County stated that they did not agree with a statement in the status report that livestock grazing could be a threat. This belief was echoed by another attendee at the public hearing.

Response: The status report refers to the threat of grazing as a possibility, not a fact, and the proposed rule does not even refer to grazing as a threat. On the other hand, as mentioned earlier, significant impacts from livestock trampling were observed to occur on the hillside where the twinpod occurs in the Yanks Gulch Area of Critical Environmental Concern.

Issue 9: The County raised the point that surface disturbance may actually favor *P. obcordata* by reducing competition from other plants.

Response: *P. obcordata* has been observed to colonize small disturbed areas, such as road cuts, below communities where it is already found. However, were large-scale surface mining of oil shale to occur, widespread habitat destruction would occur, and natural recolonization of very large disturbed areas would be unlikely without a nearby seed source.

Issue 10: One attendee at the public hearing offered to show the Service other *Lesquerella* sites.

Response: The Service contacted this commenter after the hearing. The commenter stated he would be visiting the area where he thought he saw the species, and would bring specimens back if he found any. As of this writing, the Service has not received further word on this subject from the commenter.

Issue 11: Two attendees at the public hearing wished to know whether it would be possible to transplant or revegetate these species to minimize the probability of conflict with development activities.

Response: As yet, no research has been conducted with these species to determine whether transplantation or revegetation could be used as techniques to minimize conflict. Were development contemplated in the Piceance Basin in the near future, several years of lead time would be

required to evaluate the efficacy of these techniques, e.g., evaluating survivorship within transplanted or revegetated areas. It has been noted, however, that other species of *Physaria* are relatively easy to propagate from seed.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Lesquerella congesta* and *Physaria obcordata* should be classified as threatened species. Procedures found at section 4(a)(1) of the Endangered Species 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 *Lesquerella congesta* Rollins (Dudley Bluffs bladderpod) and *Physaria obcordata* Rollins (Dudley Bluffs twinpod) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Portions of the multimineral oil shale area, including Dudley Bluffs, Ryan Gulch, and Yellow Creek, overlay oil shale deposits that are potentially recoverable by open-pit mining (Bureau of Land Management 1984). The rest of the area is suitable for underground mining of oil shale. A pilot project for a nahcolite solution mine has been constructed on Bar D Mesa between Piceance Creek, Yellow Creek, Ryan Gulch, and a 125,000 tons per year commercial mine, including evaporation ponds and a pipeline, has been proposed which would cover 254 acres (Bureau of Land Management 1986, Bureau of Land Management 1987b). Currently, the Bureau is reserving the multimineral area from commercial leasing until improved multimineral recovery technology is developed. However, leases for noncommercial research tracts not exceeding 2,000 acres will still be considered. Because of the massive scale of potential development in the limited area in which *L. congesta* and *P. obcordata* occur, a significant portion of the habitat of these two wild mustards would be destroyed and/or modified and their range possibly curtailed if development occurs. Up to 100 and 72 percent of the acreages on which *L. congesta* and *P. obcordata* occur, respectively, could be developed. There is already a designated linear utility corridor for pipelines, transmission lines, and roads along Ryan Gulch (Bureau of Land Management 1987a),

and potential corridors exist along Dudley Gulch, Piceance Creek, and Yellow Creeks (Bureau of Land Management 1984). One of the Calamity Ridge sites has been bisected by a road (Colorado Natural Areas Program 1987).

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* No such detrimental uses of these plants are known:

C. *Disease or predation.* No threats are known from disease or predation.

D. *The inadequacy of existing regulatory mechanisms.* There were no Federal or State laws protecting *L. congesta* and *P. obcordata* on Federal, State, or private lands prior to this listing. The Bureau's designation of one area each at Dudley Bluffs and Calamity Ridge as Areas of Critical Environmental Concern has provided and continues to provide for priority management of *L. congesta* and *P. obcordata* at these sites. However, these areas only protect about 20 percent of these species' limited habitat (about 50 acres for *L. congesta* and 250 acres for *P. obcordata*). The Act would provide additional protection and encourage active management through the "Available Conservation Measures" discussed below.

E. *Other natural or man-made factors affecting its continued existence.* These species' pattern of rarity, being locally abundant on small areas of specialized habitat, makes them particularly vulnerable to surface disturbances despite their high densities.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by these species in determining to make this rule final. Based on this evaluation, the preferred action is to list *Lesquerella congesta* and *Physaria obcordata* as threatened. These species are restricted endemics with threats from potential oil shale development which could cause the two species to become endangered within the foreseeable future throughout all or a significant portion of their range: thus, they are threatened species as defined by the Act. Were large-scale oil shale development in the Piceance Basin imminent, these species would have been considered for endangered status. The Bureau has designated two areas containing these species as Areas of Critical Environmental Concern, which will provide for priority management (although impacts may still occur as noted above in "Comments" section), but neither species was protected by any State or Federal legislation prior to this listing. For reasons given below, it is

not considered prudent to propose designation of critical habitat.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary designate any habitat of a species which is considered to be critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not presently prudent for *L. congesta* and *P. obcordata*. The designation of critical habitat is not considered prudent when such designation would not be of net benefit to the species. No benefit to these species can be identified from critical habitat designation that would outweigh the potential threat of vandalism or collection, which might increase if detailed habitat maps were published. The major populations of these species are accessible by major roads and their high densities on small acreages make them vulnerable to vandalism or collection.

Few, if any, additional benefits would be provided to these species by the critical habitat designation that would not already be provided by listing these species as threatened, particularly as the majority of the populations are located on lands under Federal jurisdiction. Any Federal action that would impact these plants' habitat would affect the plants as rooted organisms and, consequently, would be addressed through consultation under section 7 consultation. Moreover, section 9(a)(2)(B) of the Act, as implemented by 50 CFR 17.61 and 17.71, makes it unlawful to remove and reduce to possession any listed species of plant from areas under Federal jurisdiction. The Bureau is aware of the occurrences on their land and of its obligation under section 7 of the Act. Additional protection was extended by the 1988 amendments to the Act, which prohibited the malicious damage or destruction of listed plants on Federal lands, and the removal, cutting, digging up, or damaging or destroying of these plants on areas not under Federal jurisdiction in knowing violation of any State law or regulation, including State criminal trespass law. All involved parties and landowners have been or will be notified of the location and importance of protecting these species' habitat, and such protection will be addressed through the recovery process.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered

Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against certain activities involving listed plants are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

L. congesta and *P. obcordata* occur largely on Federal land administered by the Bureau. The Bureau's involvement could include section 7 consultation on multiminer development and land exchanges with energy companies to bring the privately owned sites into Federal ownership and protection. On both Federal and private land, the Service expects that listing would elevate the awareness of these plants' status and foster efforts aimed toward their conservation.

The Act and its implementing regulations found at 50 CFR 17.71 and 17.72 set forth a series of general trade prohibitions and exceptions that apply to all threatened plants. All trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.71, would apply. These prohibitions, in part, would make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of commercial activity, sell or offer for sale this species in interstate or foreign

commerce, or to remove and reduce to possession the species from areas under Federal jurisdiction. Seeds from cultivated specimens of threatened plant species are exempt from these prohibitions provided that a statement of "cultivated origin" appears on their containers. In addition, for endangered plants, the 1988 amendments (Pub. L. 100-478) to the Act prohibit the malicious damage or destruction on Federal lands and the removal, cutting, digging up, or damaging or destroying of listed plants in knowing violation of any State law or regulation, including State criminal trespass law. Certain exceptions apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened species under certain circumstances. With regard to *L. congesta* and *P. obcordata*, it is anticipated that few, if any, trade permits would ever be sought or issued since these species are not common in cultivation or in the wild. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, P.O. Box 3507, Arlington, Virginia 22203 (703/358-2104).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

References Cited

- Bureau of Land Management. 1984. Draft Piceance Basin resource management plan and environmental impact statement. U.S. Government Printing Office. Washington, DC. 270 pp.
- Bureau of Land Management. 1986. Draft environmental impact statement, Wolf Ridge Corporation mine plan for a nahcolite solution mine. Meeker, Colorado. 149 pp.
- Bureau of Land Management. 1987a. Piceance Basin resource management plan record of decision. U.S. Government Printing Office. Washington, DC. 57 pp.

Bureau of Land Management. 1987b. Final environmental impact statement, Wolf Ridge Corporation mine plan for a nahcolite solution mine. Meeker, Colorado. 97 pp.

Cashion, W.B., and J.R. Donnell. 1974. Revision of nomenclature of the upper part of the Green River Formation, Piceance Creek Basin, Colorado, and Eastern Uinta Basin, Utah. U.S. Geological Survey Bulletin 1394-G. 9 pp.

Colorado Natural Areas Program. 1987. Status report for *Physaria obcordata*. Denver, Colorado. 53 pp.

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O'Kane, S.L., and J.L. Anderson. 1987. *Penstemon debilis* (Scrophulariaceae): a new species from Colorado endemic to oil shale. *Brittonia* 39:412-416.

Rollins, R.C. 1983. Studies in the Cruciferae of western North America. *Journal of the Arnold Arboretum* 64:494-496.

Rollins, R.C. 1984. Studies in the Cruciferae of western North America II. Contributions from the Gray Herbarium 214:7-9.

Author

The primary author of this final rule is John L. Anderson, botanist, U.S. Fish and Wildlife Service, Grand Junction, Colorado (303/243-2778, FTS 322-0351; see ADDRESSES above.)

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Fish, Marine mammals, Plants (agriculture).

Regulation Promulgation

PART 17—[AMENDED]

Accordingly, part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, is amended as set forth below:

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1543; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.12(h) by adding the following, in alphabetical order under the family Brassicaceae, to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

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(h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Brassicaceae—Mustard family						
<i>Lesquerella congesta</i>	Dudley Bluffs bladderpod.....	U.S.A. (CO).....	T	373	NA	NA
<i>Physaria obcordata</i>	Dudley Bluffs twinpod.....	U.S.A. (CO).....	T	373	NA	NA

Dated: January 24, 1990.
 Jay L. Gerst,
 Acting Director, Fish and Wildlife Service.
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