

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Brassicaceae—Mustard Family:						
<i>Caulanthus californicus</i>	California jewelflower	U.S.A. (CA)	E		NA	NA
Malvaceae—Mallow Family:						
<i>Eremalche kernensis</i>	Kern mallow	U.S.A. (CA)	E		NA	NA
Polemoniaceae—Phlox family:						
<i>Eriastrum hooveri</i>	Hoover's wooly-star	U.S.A. (CA)	T		NA	NA
Asteraceae—Aster family:						
<i>Lembertia congdonii</i>	San Joaquin wooly-threads	U.S.A. (CA)	Ed		NA	NA
Cactaceae—Cactus family:						
<i>Opuntia treleasei</i>	Bakershield cactus	U.S.A. (CA)	E		NA	NA

Dated: June 12, 1989.
 Susan Recce Lamson,
 Acting Assistant Secretary for Fish and
 Wildlife and Parks.
 [FR Doc. 89-17595 Filed 7-26-89; 8:45 am]
 BILLING CODE 4310-55-M

50 CFR Part 17

RIN 1018-AB31

Endangered and Threatened Wildlife and Plants; Proposal to List the Purple Cat's Paw Pearly Mussel as an Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to list a freshwater mussel, the purple cat's paw pearly mussel (*Epioblasma (=Dysnomia) obliquata obliquata (=E. sulcata sulcata)*), as an endangered species under the Endangered Species Act of 1973, as amended (Act). This freshwater mussel historically occurred in the Ohio River and its large tributaries in Ohio, Indiana, Illinois, Kentucky, Tennessee, and Alabama. Presently the purple cat's paw pearly mussel is known from only two relic, apparently nonreproducing populations—one in a reach of the Cumberland River in Tennessee and one in a reach of the Green River in Kentucky. The distribution and reproductive capacity of this species have been seriously impacted by the construction of impoundments on the large rivers it once inhabited. Unless reproducing populations are found or methods developed to maintain existing

populations, this species will likely become extinct in the foreseeable future. Comments and information are sought from the public concerning this proposal.

DATES: Comments from all interested parties must be received by September 25, 1989. Public hearing requests must be received by September 11, 1989.

ADDRESS: Comments and materials, and requests for public hearing concerning this proposal should be sent to the Field Supervisor, U.S. Fish and Wildlife Service, Asheville Field Office, 100 Otis Street, Room 224, Asheville, North Carolina 28801. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Mr. Richard G. Biggins at the above address (704/259-0321 or FTS 672-0321).

SUPPLEMENTARY INFORMATION:

Background

The purple cat's paw pearly mussel (*Epioblasma (=Dysnomia) Obliquata obliquata (=E. sulcata sulcata)*), was described by Rafinesque (1820). The white cat's paw (*Epioblasma (=Dysnomia) sulcata delicata*), the northern subspecies of the cat's paw pearly mussel known from the Lake Erie system of the St. Lawrence drainage, was listed as endangered on June 14, 1976 (41 FR 24064). The purple cat's paw, which is characterized as a large river species (Bates and Dennis 1985), has a medium-size shell that is subquadrate in outline (Bogan and Parmalee 1983). The shell has fine, faint, wavy green rays with a smooth and shiny surface. The inside of the shell is purplish to deep

purple (the inside shell of the white cat's paw is white). Like other freshwater mussels, the purple cat's paw feeds by filtering food particles from the water. It has a complex reproductive cycle in which the mussel's larvae parasitize fish. The mussel's life span, fish species its larvae parasitize, and other aspects of its life history are unknown.

The purple cat's paw pearly mussel was historically distributed in the Ohio, Cumberland, and Tennessee River systems in Ohio, Illinois, Indiana, Kentucky, Tennessee, and Alabama (Bogan and Parmalee 1983, Isom *et al.* 1979, Kentucky Nature Preserves Commission 1980, Parmalee *et al.* 1980, Watters 1986, Stansbery 1970). Based on personal communication with knowledgeable experts (Steven Ahlstedt and John Jenkinson, Tennessee Valley Authority, 1987; Mark Gordon and Robert Anderson, Tennessee Technological University, 1988; Arthur Bogan, Philadelphia Academy of Sciences, 1988; Ronald Cicerello, Kentucky Nature Preserves Commission, 1988; David Stansbery, Ohio State University, 1987) and a review of current literature, the species is known to survive in only two river reaches, but apparently as nonreproducing populations. These are located in the Cumberland River, Smith County, Tennessee, and the Green River, Warren and Butler Counties, Kentucky.

The continued existence of these two populations is questionable. Unless reproducing populations can be found or methods can be developed to maintain these or create new populations, the species will become extinct in the foreseeable future. Any individuals that do still survive in these two river

reaches are also threatened from other factors. The Green River in Kentucky has experienced water quality problems related to the impacts from oil and gas production in the watershed. The individuals still surviving in the Cumberland River are potentially threatened by gravel dredging, channel maintenance, and commercial mussel fishing. Although the species is not commercially valuable, incidental take of the species does sometimes occur in the Cumberland River during commercial mussel fishing for other species.

The purple cat's paw pearly mussel was recognized by the Service as a category 2 species (one that is being considered for possible addition to the Federal List of Endangered and Threatened Wildlife) in a May 22, 1984, notice published in the *Federal Register* (49 FR 21664). On May 2, 1988, and September 8, 1988, the Service notified Federal, State, and local governmental agencies and interested individuals by mail that a status review was being conducted specifically on the purple cat's paw pearly mussel and that the species could be proposed for listing. Since that time, additional contacts with Federal and State agency personnel and the scientific community have occurred concerning the species' status, its potential for protection under the Endangered Species Act, and possible future recovery actions.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act set forth procedures for adding species to the Federal list. A species may be determined to be endangered or threatened due to one or more of the five factors described in section 4(a)(1). These factors and their application to the purple cat's paw pearly mussel (*Epioblasma* (= *Dysnomia*) *obliquata obliquata* (= *E. sulcata sulcata*)) are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range. The purple cat's paw pearly mussel was once known from the large tributaries of the Ohio River system in Ohio, Indiana, Illinois, Kentucky, Tennessee, and Alabama (Bogan and Parmalee 1983). However, all but two of the historically known populations were apparently lost due to conversion of many sections of the bigger rivers to a series of large impoundments. This seriously reduced the availability of preferred riverine

gravel/sand habitat and likely affected the distribution and availability of the mussel's fish host. As a result, the species' distribution has been substantially reduced.

The State of Indiana has no current records of the species in the State (Indiana Department of Natural Resources, personal communication, 1988). The species has not been collected in Illinois in over 100 years (Illinois Natural History Survey Division, personal communication, 1988). In Kentucky the species is now known only from the Green River, Warren and Butler Counties, Kentucky (Kentucky Fish and Wildlife and Kentucky Nature Preserves Commission, personal communication, 1988). This Green River population is represented by only one old but freshly dead individual taken on the Green River in Warren and Butler Counties, Kentucky, in 1988 (Robert Anderson, Tennessee Technological University, personal communication, 1988). Prior to 1988, the mussel had not been collected in the Green River since 1971 (Kentucky Nature Preserves Commission, personal communication, 1988). The middle Cumberland River (Smith County, Tennessee) contains the only known living representative of the purple cat's paw in Tennessee (U.S. Army Corps of Engineers, personal communication, 1988). The historical collection site in Alabama (on the Tennessee River at Muscle Shoals) is now impounded (Bogen and Parmalee 1983).

The two surviving populations are threatened from impacts on their environment. The Green River population is threatened from degradation of water quality resulting from inadequate environmental controls of oil and gas exploration and production facilities, and from altered stream flows from upstream reservoirs. The Cumberland River population is potentially threatened by river channel maintenance, navigation projects, and gravel and sand dredging.

B. Overutilization for commercial, recreational, scientific, or educational purposes. Although the species is not commercially valuable, it does exist on harvested mussel beds, and the species is therefore sometimes taken by mussel fishermen. Thus, take does pose some threat to the species. Federal protection would help to control the take of individuals.

C. Disease or predation. Although the purple cat's paw pearly mussel is undoubtedly consumed by predatory animals, there is no evidence that predation threatens the species. However, freshwater mussel die-offs

have recently (early to mid-1980s) been reported throughout the Mississippi River basin, including the Tennessee River and its tributaries (Richard Neves, Virginia Polytechnic Institute and State University, personal communication, 1986). The cause of the die-offs has not been determined, but significant losses have occurred to some populations.

D. The inadequacy of existing regulatory mechanisms. The States of Kentucky and Tennessee prohibit taking fish and wildlife, including freshwater mussels, for scientific purposes without a State collecting permit. However, these States do not protect the species from take for other purposes. Federal listing will provide the species additional protection under the Endangered Species Act by requiring Federal permits to take the species and by requiring Federal agencies to consult with the Service when projects they fund, authorize, or carry out may affect the species.

E. Other natural or manmade factors affecting its continued existence. Neither of the presently known populations is known to be reproducing. Therefore, unless reproducing populations can be found or methods can be developed to maintain existing populations or create new ones, the species will be lost in the foreseeable future. In fact, both known populations may contain only old individuals that have passed their reproductive age.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to propose this rule. Based on this evaluation, the preferred action is to list the purple cat's paw pearly mussel (*Epioblasma* (= *Dysnomia*) *obliquata obliquata* (= *E. sulcata sulcata*)) as an endangered species. Historical records reveal that the species was once much more widely distributed in many of the large rivers of the Ohio River system. Presently only two isolated, apparently nonreproducing populations are known to survive. Due to the species' history of population losses and the vulnerability of the two remaining populations, threatened status does not appear appropriate for this species (see "Critical Habitat" section for a discussion of why critical habitat is not being proposed for the purple cat's paw pearly mussel).

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 that 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 prudent for the purple cat's paw pearly mussel at this time, owing to the lack of benefits from such designation. The U.S. Army Corps of Engineers, the Tennessee Valley Authority, and the U.S. Park Service are the three Federal agencies most involved, and they, along with the State natural resources agencies in Tennessee and Kentucky, are already aware of the location of the remaining populations that would be affected by any activities in these river reaches. All the Federal agencies mentioned have conducted studies in these river basins and are knowledgeable of the fauna and of their projects' impacts. No additional benefits would accrue from critical habitat designation that would not also accrue from the listing of the species. In addition, this species is so rare that taking for scientific purposes and private collection could be a threat. The publication of critical habitat maps and other publicity accompanying critical habitat designation could increase that threat. The location of populations of this species has consequently been described only in general terms in this proposed rule. Any existing precise locality data would be available to appropriate Federal, State, and local governmental agencies through the Service office described in the "ADDRESSES" section.

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. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibition against taking and harm 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)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in the destruction or adverse modification of proposed critical habitat. If a species is subsequently listed, 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 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.

The Service has notified Federal agencies that may have programs that affect the species. Federal activities that could occur and impact the species include, but are not limited to, the carrying out or the issuance of permits for hydroelectric facility construction and operation, reservoir construction, river channel maintenance, stream alterations, wastewater facilities development, and road and bridge construction. It has been the experience of the Service, however, that nearly all section 7 consultations have been resolved so that the species has been protected and the project objectives have been met. In fact, the areas inhabited by the purple cat's paw pearly mussel are also inhabited by other mussels that have been federally listed since 1976. The Service has a history of successful resolution of section 7 conflicts that have protected the species and allowed for project objectives to be met throughout these areas.

The Act and implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take any listed species, import or export it, ship it in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions would apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes to enhance the propagation or survival of the species

and/or for incidental take in connection with otherwise lawful activities.

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning any aspect of this proposal are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to this species;

(2) The location of any additional populations of this species and the reasons why any habitat should or should not be determined to be critical habitat as provided by Section 4 of the Act;

(3) Additional information concerning the range and distribution of this species; and

(4) Current or planned activities in the subject area and their possible impacts on this species.

Final promulgation of the regulation on this species will take into consideration the comments and any additional information received by the Service, and such communications may lead to adoption of a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of the proposal. Such requests must be made in writing and addressed to the Field Supervisor, U.S. Fish and Wildlife Service, Asheville Field Office, 100 Otis Street, Room 224, Asheville, NC 28801.

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

- Bates, J.M., and S.D. Dennis. 1985. Mussel resource survey—State of Tennessee. Tennessee Wildlife Resources Agency Technical Report No. 85-3. 125 pp.
- Bogan, A.E., and P.W. Parmalee. 1983. Tennessee's rare wildlife, volume II: the mollusks. 123 pp.

Kentucky Nature Preserves Commission. 1980. Kentucky natural area plan—appendix A. *Obovaria retusa* (Lamarck). Frankfort, KY.

Isom, B.G., C. Gooch, S.D. Dennis. 1979. Rediscovery of a presumed extinct river mussel *Dysnomia sulcata* (Unionidae). The Nautilus 93(2-3):84.

Parmalee, P.W., W.E. Klippel, and A.E. Bogan. 1980. Notes on the prehistoric and present status of Naid fauna of the middle Cumberland River, Smith County, Tennessee. The Nautilus 94(3):93-105.

Rafinesque, Constantine S. 1820. Monographie des coquilles bivalves et fluviatiles de la riviere Ohio. Generales des Sciences-Physiques 5(13):287-322, 3 pl.

Sickel, James B. 1985. Biological assessment of the freshwater mussels in the Kentucky Dam tailwaters of the Tennessee River. Submitted to Kentucky Division of Water, Frankfort, Kentucky. 42 pp.

Stansbery, David H. 1970. Eastern freshwater mollusks (I) The Mississippi and St. Lawrence River systems. Malacologia 10(1):9-22.

Watters, G.T. 1986. The Nature Conservancy Element Stewardship Abstract: *Epioblasma obliquata obliquata*. The Nature Conservancy, Midwest Regional Office, Minneapolis, Minnesota. Unpublished report. 4 pp.

Author

The primary author of this proposed rule is Richard G. Biggins, U.S. Fish and Wildlife Service, Asheville Field Office, 100 Otis Street, Room 224, Asheville, North Carolina 28801 (704/259-0321 or FTS 672-0321).

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter

I, Title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

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

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411; Pub. L. 100-478, 102 Stat. 2306; Pub. L. 100-653, 102 Stat. 3825 [16 U.S.C. 1531 *et seq.*]; Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

2. It is proposed to amend § 17.11(h) by adding the following, in alphabetical order under CLAMS, to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
CLAMS:							
Pearly mussel, purple cat's paw.	<i>Epioblasma obliquata obliquata</i> (= <i>E. sulcata sulcata</i>).	U.S.A. (AL, IL, IN, KY, TN)	NA.....	E	NA	NA

Dated: June 12, 1989.
 Susan Recce Lamson,
 Acting Assistant Secretary for Fish and Wildlife and Parks.
 [FR Doc. 89-17597 Filed 7-26-89; 8:45 am]
 BILLING CODE 4310-55-M

50 CFR Part 17

RIN 1018-AB31

Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for the Arkansas Fatmucket, *Lampsilis powelli*

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Service proposes to determine the Arkansas fatmucket, *Lampsilis powelli*, to be a threatened species under the authority of the Endangered Species Act of 1973, as amended (Act). This freshwater mussel is known to exist in the headwaters of the Saline River, and in the Caddo, Ouachita, and South Fork Ouachita Rivers of central Arkansas. Major threats to its continued existence are impoundments, channel alteration,

gravel dredging, sedimentation and water quality degradation. This proposal, if made final, would implement the protection of the Act for the Arkansas fatmucket. The Service seeks relevant data and comments from the public.

DATES: Comments from all interested parties must be received by September 25, 1989. Public hearing requests must be received by September 11, 1989.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Jackson Field Office, U.S. Fish and Wildlife Service, Jackson Mall Office Center, Suite 316, 300 Woodrow Wilson Avenue, Jackson, Mississippi 39213. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: James Stewart at the above address (601/965-4900 or FTS 490-4900).

SUPPLEMENTARY INFORMATION:

Background

The Arkansas fatmucket was described as *Unio powelli* by Lea in 1852 from the Saline River, Arkansas (Johnson 1980). It was synonymized

under *Actinonaias ligamentina* by Call in 1895 (Harris and Gordon 1988). In 1900, Simpson placed it in the genus *Lampsilis* (Simpson 1914). The species has been overlooked by a number of authors in reviews of Arkansas mussel fauna, including Burch (1975), Gordon, et al. (1980) and Gordon (1980). Johnson (1980) in his monograph, Stansbery (1983), and Gordon and Harris (1985) all consider *L. powelli* as a valid species. Reported collections of *L. powelli* from the Spring and Neosho Rivers, Kansas, and the Black River, Missouri, are misidentifications.

The shell of the Arkansas fatmucket is generally of medium size, but it occasionally exceeds 100 mm in length. It is elliptical to long obovate with subinflated valves. The umbos are moderately full and project slightly above the hinge line. The shell surface is generally smooth with a shiny olive brown to tawny periostracum and lacks rays. The nacre is bluish white and iridescent. There is sexual dimorphism (Johnson 1980).

The Arkansas fatmucket prefers deep pools and backwater areas that possess sand, sand-gravel, sand-cobble or sand-rock with sufficient flow to periodically