

requirement. For additional information concerning permits and associated requirements for endangered plants, see 50 CFR 17.62 and 17.63.

**References Cited**

A complete list of all references in this document is available upon request from the Field Supervisor, Sacramento Fish and Wildlife Office (see ADDRESSES section).

Author: The primary author of this final rule is Kirsten Tarp, U.S. Fish and Wildlife Service, Sacramento Fish and

Wildlife Office (see ADDRESSES section); telephone 916/414-6464.

**List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

**Regulation Promulgation**

For the reasons given in the preamble, we 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:** 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 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 FLOWERING PLANTS, to the List of Endangered and Threatened Plants:

**§ 17.12 Endangered and threatened plants.**  
 \* \* \* \* \*  
 (h) \* \* \*

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
* <i>Delphinium bakeri</i> ....	* Baker's larkspur .....	* U.S.A. (CA) .....	* Ranunculaceae .....	* E	* 681	* NA	* NA
* <i>Delphinium luteum</i> ...	* Yellow larkspur .....	* U.S.A. (CA) .....	* Ranunculaceae .....	* E	* 681	* NA	* NA
* 	* 	* 	* 	* 	* 	* 	* 

Dated: December 15, 1999.  
**Jamie Rappaport Clark,**  
 Director, U.S. Fish and Wildlife Service.  
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**DEPARTMENT OF THE INTERIOR**  
**Fish and Wildlife Service**

**50 CFR Part 17**  
**RIN 1018-AE27**

**Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for Newcomb's Snail From the Hawaiian Islands**

**AGENCY:** Fish and Wildlife Service, Interior.  
**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), determine the Newcomb's snail (*Erinna newcombi*) to be a threatened species under the authority of the Endangered Species Act of 1973, as amended (Act). This freshwater snail is restricted to the Hawaiian Island of Kauai. The distribution of this snail has greatly decreased from the known historic distribution, and the existing populations are presently limited to restricted habitats within six perennial streams on State land. The six known populations of Newcomb's snail and its habitat are currently threatened by

predation by a non native predatory snail, two species of non native marsh flies, a non native fish, and two species of non native frogs. These populations are also subject to an increased likelihood of extirpation from naturally occurring events, including natural disasters such as hurricanes and landslides. This final rule implements the Federal protection provisions provided by the Act for Newcomb's snail.

**EFFECTIVE DATE:** This rule takes effect February 25, 2000.

**ADDRESSES:** The complete file for this rule is available for inspection, by appointment, during normal business hours at the Pacific Islands Ecoregion, U.S. Fish and Wildlife Service, 300 Ala Moana Boulevard, Room 3-122, Box 50088, Honolulu, HI 96850.

**FOR FURTHER INFORMATION CONTACT:** Robert Smith, Pacific Islands Manager, Pacific Islands Ecoregion (see ADDRESSES section) (808/541-2749; facsimile: 808/541-2756).

**SUPPLEMENTARY INFORMATION:**

**Background**

The Hawaiian archipelago comprises eight main islands (Niihau, Kauai, Oahu, Molokai, Lanai, Kahoolawe, Maui, and Hawaii) and their offshore islets, plus the shoals and atolls of the Northwest Hawaiian Islands. The main islands and the northwestern chain were formed sequentially by basaltic lava that emerged from a crustal hot

spot currently located near the southeast coast of the island of Hawaii (Stearns 1985). Hawaii is the youngest island in the chain and is characterized by gently sloping shield volcanoes and currently active lava flows. Volcanoes on the other islands are either dormant or extinct. Ongoing erosion has formed steep-walled valleys with well developed soils and stream systems throughout the chain. Kauai, the oldest and most northwesterly of the main islands, is characterized by high rainfall, deep valleys, numerous perennial streams, and luxuriant vegetation.

Four species of Lymnaeidae snails are native to Hawaii (Morrison 1968 and Hubendick 1952). Three of these species are found on two or more of the eight main islands. The fourth species, Newcomb's snail, is restricted to the island of Kauai. Newcomb's snail is unique among the Hawaiian lymnaeids in that the slender, tapering shape typically associated with the shells of lymnaeids has been completely lost. The result is a smooth, black shell formed by a single, oval whorl, 6 millimeters (mm) (0.25 inches (in.)) long and 3 mm (0.12 in.) wide. A similar shell shape is found in a Japanese lymnaeid (Burch 1968), but Burch's study of chromosome number shows that Newcomb's snail has evolutionary ties to the rest of the Hawaiian lymnaeids, all of which are derived from North American ancestors (Patterson and Burch 1978). This parallel evolution of similar shell

morphology in Japan and Hawaii from two distinct lineages of lymnaeid snails is of particular scientific interest.

At the present time, there is no generally accepted nomenclature for the genera of Hawaiian lymnaeids, although each of these snail species, including Newcomb's snail, is recognized as a well defined species. Newcomb's snail was originally described as *Erinna newcombi* in 1855 by H. and A. Adams (Hubendick 1952). Hubendick (1952) did not feel that the distinctive shell form (described above) and reduced structures of the nervous system of Newcomb's snail warranted a monotypic genus. In fact, Hubendick included all Hawaiian lymnaeids in the genus *Lymnaea*. Morrison (1968) opposed Hubendick, and argued that the distinctive shell characters of Newcomb's snail supported the generic name *Erinna*. Burch (1968), Patterson and Burch (1978), Taylor (1988), and Cowie *et al.* (1995) all followed Morrison and referred to Newcomb's snail as *Erinna newcombi*. This scientific name is currently accepted for Newcomb's snail.

Newcomb's snail is an obligate freshwater species. While the details of its ecology are not well known, Newcomb's snail probably has a life history similar to other members of the family. These snails generally feed on algae and vegetation growing on submerged rocks. Eggs are attached to submerged rocks or vegetation, and there are no dispersing larval stages; the entire life cycle is tied to the stream system in which the adults live (Baker 1911). Dispersal of Newcomb's snail among stream systems is probably very infrequent due to their obligate freshwater habitat requirements. Historic dispersal probably relied on long-term erosional events that captured adjacent stream systems. This life history differs greatly from the freshwater Hawaiian neritid snails (*Neritina* spp.), which have marine larvae that colonize streams following a period of oceanic dispersal (Kinzie 1990). Larvae of these neritid snails can likely disperse across the oceanic expanses that separate the Hawaiian Islands and colonize streams on any or all of these islands. This dispersal capacity is not available to Newcomb's snail.

The specific habitat requirements of Newcomb's snail include fast flowing perennial streams with stable overhanging rocks, springs, rock seeps, and waterfalls (Michael Kido, University of Hawaii, *in litt.* 1994; Stephen Miller, U.S. Fish and Wildlife Service (Service), pers. obs. 1994; Polhemus *et al.* (1992); Burch 1968; Hubendick 1952). Surveys of main

stream channels of many of the perennial streams of Kauai indicate that Newcomb's snail is rarely found in these main channels (Adam Asquith, Service, pers. obs. 1994; Don Heacock, State of Hawaii, Department of Land and Natural Resources, *in litt.* 1995; M. Kido, *in litt.* 1994, 1995; S. Miller, pers. obs. 1994a, b; Timbol 1983). The limited occurrence of this snail in main stream channels may be due to scouring by sediment, rocks, and boulders that are moved downstream during heavy rains. Consequently, available suitable habitat is generally associated with small feeder streams, seeps, and waterfalls.

The present known range of Newcomb's snail is limited to six stream systems. Each stream supports a single population of Newcomb's snail (A. Asquith, pers. obs. 1994; M. Kido, *in litt.* 1994; S. Miller, pers. obs. 1994a, b; Hubendick 1952). These populations are located in the Hanalei River, Kalalau Stream, the Lumahai River, the North Fork of the Wailua River, Makaleha Stream, and Waipahee Stream. Makaleha and Waipahee Streams both flow into Kapaa Stream. The populations fall into two groups; populations first observed prior to 1925 and populations observed since 1993. Five populations were identified prior to 1925. Three of these populations (Wainiha, Hanakapiai, and Hanakoa) no longer exist. Of the two remaining pre-1925 populations, one (Waipahee) is small and the other (Kalalau) is relatively large (see below). These data indicate that the number of populations of Newcomb's snail has been greatly reduced since 1925, perhaps by as much as 60 percent.

Since 1990, surveys of at least 46 streams, tributaries and springs on Kauai have located 4 previously unknown populations of Newcomb's snail (A. Asquith, pers. obs. 1994; D. Heacock, *in litt.* 1995; M. Kido, *in litt.* 1994, 1995; S. Miller, pers. obs. 1994a, b; Timbol 1983). Three of these populations are small (see below), and the fourth population has been described as large.

No historic information is available on the population sizes of Newcomb's snail. However, recent reports indicate that two of the six known populations of Newcomb's snail are relatively large, the Kalalau and Lumahai populations. The high density of individuals in the Kalalau population may be indicative of an undisturbed natural condition. The estimated maximum density at the base of the upper permanent waterfall, including the area behind the falling water, is approximately 800 snails/square meter ( $m^2$ ) (75 snails/square foot ( $ft^2$ )) (S. Miller, pers. obs. 1994b). The total area occupied by these snails could

not be accurately evaluated due to the extreme vertical orientation of the waterfall. Little information on specific size or area is currently available for the population of Newcomb's snail from the Lumahai River, although this population has been reported to be large (M. Kido, *in litt.* 1995).

The population in Makaleha Stream is divided into two subpopulations. One subpopulation is estimated at 30 snails/ $m^2$  (2 to 3 snails/ $ft^2$ ) distributed over 2 to 3  $m^2$  (21 to 32  $ft^2$ ) (M. Kido, *in litt.* 1994). This is considerably smaller than the previously described population in Kalalau Stream. The reasons for differences in these two populations are not known with certainty, but may be due to the presence or absence of non native predators and the deliberate use by humans of one species of organism to feed on lymnaeid snails. The subpopulation that occupies Makaleha Springs covers approximately 20 to 30  $m^2$  (212 to 318  $ft^2$ ) (S. Miller, pers. obs. 1994a). Snail densities at this site are difficult to estimate but may be as high as 20 to 30 snails/ $m^2$  (1 to 3 snails/ $ft^2$ ) (S. Miller, pers. obs. 1994a).

The sizes of the three other populations of Newcomb's snail have been characterized as small. The population in the Waipahee Stream is estimated to cover 5 to 10  $m^2$  (53 to 106  $ft^2$ ) with a density of approximately 50 to 80 snails/ $m^2$  (4 to 8 snails/ $ft^2$ ) (A. Asquith, pers. obs. 1994). The population of Newcomb's snail in the Hanalei River is divided into four subpopulations (M. Kido, *in litt.* 1994, 1995). One subpopulation has approximately 10 to 20 snails/ $m^2$  (1 to 2 snails/ $ft^2$ ) and occupies 2 to 3  $m^2$  (21 to 32  $ft^2$ ) (M. Kido, *in litt.* 1994). A second subpopulation supports approximately 25 snails. The two remaining subpopulations are reported to be small with very few snails (M. Kido, *in litt.* 1995). The population found in the North Fork of the Wailua River, is best described as short-lived.

Based on these data, we estimate that the six known populations of Newcomb's snail have a total of approximately 6,000 to 7,000 individuals. The great majority of these snails, perhaps over 90 percent, are located in the two populations at Kalalau and Lumahai.

#### Previous Federal Action

The February 28, 1996, **Federal Register** Notice of Review of Plant and Animal Taxa that are Candidates for Listing as Endangered or Threatened Species (61 FR 7596) included Newcomb's snail as a candidate species. Candidates are those species for which

we have on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded by other higher priority listing actions. We published a proposed rule on July 21, 1997 (62 FR 38953), to list this species as threatened.

Based on all available information including comments received in response to the proposal (see Comments and Recommendations Section of this final rule), we have now determined Newcomb's snail to be threatened. The processing of this final rule conforms with our Listing Priority Guidance published in the **Federal Register** on October 22, 1999 (64 FR 57114). The guidance clarifies the order in which we will process rulemakings. Highest priority is processing emergency listing rules for any species determined to face a significant and imminent risk to its well being (Priority 1). Second priority (Priority 2) is processing final determinations on proposed additions to the lists of endangered and threatened wildlife and plants. Third priority is processing new proposals to add species to the lists. The processing of administrative petition findings (petitions filed under section 4 of the Act) is the fourth priority. The processing of critical habitat determinations (prudency and determinability decisions) and proposed or final designations of critical habitat will no longer be subject to prioritization under Listing Priority Guidance. This final rule is a Priority 2 action. We have updated this rule to reflect any changes in information concerning distribution, status and threats since the publication of the proposed rule.

#### *Summary of Comments and Recommendations*

In the July 21, 1997, proposed rule (62 FR 38953) and associated notifications, we requested interested parties to submit factual reports or information that might contribute to a final determination. The comment period was reopened and extended until December 15, 1997, to accommodate a request for a public hearing (62 FR 60676). We sent announcements of the proposed rule and notice of public hearings to appropriate Federal and State agencies, county governments, scientific organizations, and other interested parties and requested comments. We also published announcements of the proposed rule in the *Honolulu Star-Bulletin*, *Honolulu Advertiser* (Oahu), and the *Garden Island* (Kauai) on August 8, 1997. We held a public hearing on December 3,

1997, in Lihue, Kauai, Hawaii. We accepted comments on the proposed rule until the extended comment period closed.

We received a total of 10 written comments on the proposed rule, 6 by mail and 4 at the public hearing. One Federal agency commented but neither supported nor opposed the proposal. Four Hawaii State agencies provided comments, two that supported the proposal, and two that were neutral. One Kauai County agency indicated support for our efforts in the identification of species habitat areas and in maintaining a census of species but was concerned that the development or maintenance of current or future water resources could be unnecessarily restricted by listing of the Newcomb's snail. The proposal was supported by one individual, one conservation organization and one scientific museum, and opposed by one nonprofit legal foundation. In addition, three commentors expressed support for the designation of critical habitat.

In accordance with our peer review policy promulgated July 1, 1994 (59 FR 34270), we solicited the expert opinions of three appropriate and independent specialists regarding pertinent scientific or commercial data and assumptions relating to the taxonomy, population models, and supportive biological and ecological information for the Newcomb's snail. The purpose of such review is to ensure listing decisions are based on scientifically sound data, assumptions, and analysis, including input of appropriate experts and specialists. We received from these experts written comments that provided additional information on numbers of populations and individuals, distribution, and editorial changes. We incorporated peer review comments into this final rule as appropriate.

A public hearing was requested by Hawaii's Department of Land and Natural Resources (DLNR). The hearing was held at the Outrigger Kauai Beach Hotel in Lihue, Kauai on December 3, 1997, with 13 attendees. Nine oral statements and four written comments were received during the hearing, and, with one exception, all commentors supported the listing. In addition, five commentors expressed support for the designation of critical habitat.

We considered all comments, including oral testimony presented at the public hearing, and also the comments from the peer reviewers who responded to our request to review the proposed rule. We grouped comments of a similar nature by issue and summarized as follows:

*Issue 1:* Critical habitat should be designated.

*Response:* This issue is addressed under the "Critical Habitat" section of this final rule.

*Issue 2:* Current or future water resources development or maintenance could be unnecessarily restricted by listing of the Newcomb's snail.

*Response:* Section 4(b)(1)(A) of the Act requires us to make listing decisions solely on the basis of the best scientific and commercial data available, without regard to economics or other similar impacts. The legislative history of this statutory provision makes clear that economic impacts may not be considered in determining whether a species should be listed as endangered or threatened: "The addition of the word "solely" is intended to remove from the process of the listing or delisting of species any factor not related to the biological status of the species. The committee strongly believes that economic considerations have no relevance to determinations regarding the status of species \* \* \*" (H.R. Rep. No. 97-835, 97th Cong., 2d Sess. 19, (1982). Therefore, we have not considered the impacts of listing on economic development in making this listing determination.

*Issue 3:* Listing of Newcomb's snail is premature at this time because further research is needed to provide information on how best to protect it.

*Response:* We believe that listing of Newcomb's snail is warranted at this time due to the factors addressed under the "Summary of Factors Affecting the Species" section of this final rule. The requirement that section 4 listing determinations be based on the "best" scientific and commercial data available requires us to consider the best information available at the time of the listing decision. Therefore, the threats facing the species and its habitat, the limited range, and relatively small population size are good indicators that this species warrants listing. Additional information, that may be needed to determine how best to protect the species, may be developed and used in the recovery planning process.

*Issue 4:* There are significant water resource and habitat-related questions that should be evaluated prior to imposing blanket restrictions on development in habitat areas.

*Response:* Again, it is not appropriate to consider impacts on economic development in making a determination to list a species (see response to Issue 2). Further, implementing the Act would not necessarily result in blanket land use restrictions. Under section 7 of the Act, Federal actions including funding,

licensing, and permitting that may affect the species will require consultation between the Federal action agency and us to insure the Federal action is not likely to jeopardize the continued existence of Newcomb's snail. Section 9 of the Act prohibits persons from "taking" listed species. Taking is defined to include significant habitat modification where it actually kills or injures the listed species. However, these provisions do not amount to "blanket" prohibitions on development. Section 10 of the Act provides for the issuance of permits for the incidental take of listed species resulting from otherwise lawful activities when sufficient protection for the species is provided.

*Issue 5:* One respondent asserted that listing this species would exceed the scope of the Federal commerce power under the Commerce Clause of Article I, section 8 of the U.S. Constitution.

*Our Response:* The Federal Government has the authority under the Commerce Clause of the U.S. Constitution to protect this species, for the reasons given in Judge Wald's opinion and Judge Henderson's concurring opinion in *National Association of Home Builders v. Babbitt*, 130 F.3d 1041 (D.C. Cir. 1997), *cert. denied*, 1185 S. Ct. 2340 (1998). That case involved a challenge to application of the Act's prohibitions to protect the listed Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*). As with Newcomb's snail, the Delhi Sands flower-loving fly is endemic to only one State. Judge Wald held that application of the Act's prohibition against taking of endangered species to this fly was a proper exercise of Commerce Clause power to regulate: (1) Use of channels of interstate commerce; and (2) Activities substantially affecting interstate commerce, because it prevented loss of biodiversity and destructive interstate competition. Judge Henderson upheld protection of the fly because doing so prevents harm to the ecosystem upon which interstate commerce depends, and because doing so regulates commercial development that is part of interstate commerce.

#### Peer Review

The Service routinely has solicited comments from parties interested in, and knowledgeable of, species that have been proposed for listing as threatened or endangered species. The July 1, 1994, Peer Review Policy (59 CFR 34270) established the formal requirement that a minimum of three independent peer reviewers be solicited to review the Service's listing decisions. During the

July 21, 1997, to December 15, 1997, comment period, the Service solicited the expert opinions of three biologists having recognized expertise in malacology and/or conservation biology to review the proposed rule. The Service received comments from all three reviewers within the comment period. All concurred with the Service on factors relating to the taxonomy, population models, and biological and ecological information.

#### Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, we have determined that Newcomb's snail should be classified as a threatened species. We followed procedures found at section 4(a)(1) of the Act and regulations (50 CFR part 424) implementing the listing provisions of the Act. 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 Newcomb's snail (*Erinna newcombi*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Although modification of habitat is not an immediate threat, water development and diversion projects have been proposed within Newcomb's snail habitat in the past. For example, in 1994, a proposed water development project at Makaleha Springs (State of Hawaii 1994) threatened to destroy the population of Newcomb's snail at this site. This project was ultimately rejected by the State of Hawaii, Commission on Water Resource Management. However, the County of Kauai, Department of Water can submit a new application for future development of the water resources at Makaleha Springs.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Overutilization is not known to be a factor affecting Newcomb's snail at the present time.

C. *Disease or predation.* Predation by the non native rosy glandina snail (*Euglandina rosea*) is a serious threat to the survival of Newcomb's snail. This predatory snail was introduced into Hawaii in 1955 (Funasaki *et al.* 1988), and has established populations throughout the main islands. The rosy glandina feeds on snails and slugs, and field studies have established that it will readily feed on native snails found in Hawaii (Hadfield *et al.* 1993). Furthermore, Kinzie (1992) demonstrated that the rosy glandina snail can fully submerge itself under

water and feed on aquatic snails such as the Newcomb's snail. The rosy glandina has been observed on wet, algae-covered rocks of the Makaleha Springs Stream very near individuals of Newcomb's snail (S. Miller, pers. obs. 1994a), and is believed to prey on them. The rosy glandina snail has caused the extinction of many populations and species of native snails throughout the Pacific islands (Hadfield *et al.* 1993; Miller 1993; Hopper and Smith 1992; Murray *et al.* 1988; Tillier and Clarke 1983), and represents a significant threat to the survival of Newcomb's snail.

Predation on the eggs and adults of native Hawaiian lymnaeid snails by two non native species of *Sciomyzidae* flies also represents a significant threat to the survival of Newcomb's snail. Two species of marsh flies (*Sepedomerus macropus* and *Sepedon aenescens*) that feed on lymnaeid snails (Davis 1960) were introduced into Hawaii in 1958 and 1966, respectively, as biological control agents for a non native lymnaeid snail, *Fossaria viridis* (Funasaki *et al.* 1988). *Fossaria viridis* was targeted for biocontrol because it is an intermediate host of the cattle liver fluke (*Fasciola gigantica*) (Alicata 1938; Alicata and Swanson 1937). These authors misidentified *Fossaria viridis* as *Fossaria ollula*, as discussed in Morrison (1968). The non-native lymnaeid and the two biocontrol flies occur on Kauai as well as on other islands in Hawaii (Funasaki *et al.* 1988; Davis and Chong 1969; Davis 1960; Hubendick 1952). One of the marsh fly species has been observed at a site (Hanakoa Stream) where Newcomb's snail was historically recorded but is no longer present (S. Miller, pers. obs. 1994b). Another marsh fly was observed near the waterfall of a Kauai stream that had many dead lymnaeids in the waterfall plunge pool (S. Miller, pers. obs. 1994b). These biocontrol agents represent a significant threat to Newcomb's snail and other native lymnaeid snails.

Predation by several introduced aquatic species is also a possible threat to populations of Newcomb's snail (D. Heacock, *in litt.* 1997). These non native aquatic species include the green swordtail (*Xyphophorus helleri*), a fish introduced in 1922 for mosquito control; and two accidental introductions, the American bullfrog (*Rana catesbiana*), which was first recorded in 1867, and the wrinkled frog (*Rana rugosa*), which was first recorded in 1896 (State of Hawaii 1995).

D. *The inadequacy of existing regulatory mechanisms.* Newcomb's snail is not currently listed as an endangered or threatened species in

Hawaii. When this rule becomes effective and the species is listed under the Act, the State of Hawaii Endangered Species Act (HRS, sect. 195D-4(a)) will automatically be invoked. The State statute reads "Any species of aquatic life, wildlife, or land plant that has been determined to be an endangered species pursuant to the [Federal] Endangered Species Act shall be deemed to be an endangered species under the provisions of this chapter and any indigenous species of aquatic life, wildlife, or land plant that has been determined to be a threatened species pursuant to the [Federal] Endangered Species Act shall be deemed to be a threatened species pursuant under the provisions of this chapter." Further, the State may enter into agreements with Federal agencies to administer and manage any area required for the conservation, management, enhancement, or protection of endangered species (HRS, sect. 195D-5(c)). Funds for these activities could be made available under section 6 of the Federal Act (State Cooperative Agreements). However, without listing, none of these provisions would apply to Newcomb's snail.

Furthermore, current State and Federal regulatory mechanisms are inadequate to protect the species. All six of the known extant populations of Newcomb's snail occur in streams in conservation areas that are managed by the State of Hawaii primarily for watershed protection, including uses such as public drinking water, and cultural and agricultural activities. In 1987, the State of Hawaii established a Commission on Water Resource Management (CWRM) which, among other things, was responsible for issuing stream alteration permits for activities, such as water diversion and channelization, that impact Hawaii's streams and springs (State of Hawaii 1993). Since 1987, the State assumed control over all water in the State. Therefore, a State of Hawaii water permit is required for all aquatic activities such as withdrawal of water for public consumption, agricultural purposes (*i.e.*, irrigation), and stream modifications (channelization and realignment).

Protection of the streams in which Newcomb's snail occurs is inadequate under the existing State permitting process because it lacks requirements for the protection and conservation of sensitive aquatic biota. In 1992, the Hawaii State legislature passed a resolution that called for the CWRM to finalize, adopt, and implement a stream protection system, and in 1993, the CWRM appointed the Stream Protection

and Management Task Force (Sierra Club Legal Defense Fund 1994). The task force made a series of recommendations on the information that should be included in stream permit applications and the types of activities that might be allowed in streams. In addition, the task force recommended for several streams, including some of the Kauai streams in which Newcomb's snail occurs, "heritage" status, which would have provided them with additional protection. The task force recommendations have not been adopted.

Under section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (Corps) regulates the discharge of fill material into waters of the United States (33 CFR parts 320-330). Waters of the United States include navigable waters and other waters, their headwaters (streams with an average annual flow of less than 5 cubic feet per second), and wetlands. Section 404 regulations require that applicants obtain a permit for projects that involve the discharge of fill material into waters of the United States. Projects may qualify for authorization under several nationwide permits if the project falls below certain thresholds, such as affecting less than 1.2 hectares (ha) (3 acres (ac)) or less than 152 linear m (500 linear ft) of stream bed. Projects meeting the criteria for a nationwide permit are normally permitted with minimal environmental review by the Corps. However, if any listed species might be affected or is in the vicinity of the project, a prospective permittee may not begin work under the nationwide permit until the Corps satisfies the requirements of the Act. No activity is authorized by any nationwide permit if that activity is likely to jeopardize the continued existence of any listed species (see 33 CFR 330.4(f)).

Individual permits are required for the discharge of fill material into wetlands above the thresholds established by the nationwide permits. The review process for the issuance of individual permits is more rigorous than for nationwide permits. Unlike nationwide permits, individual permit applications require alternative analysis and an assessment of cumulative wetland impacts is required for and there is a 30-day public review period. Resulting permits may include special conditions that require the avoidance or mitigation of environmental impacts. If a listed species is affected, the Corps must consult with us under section 7 of the Act.

Most of the Newcomb's snail populations are fairly small, and the habitat they occupy tends to be small

seeps covering less than 1.2 ha (3 ac). Projects that may potentially impact this species could be permitted under the nationwide permit process with limited environmental review or notification because they generally fall under the nationwide permit thresholds. No other federally protected species found within the same or adjacent habitat would invoke a formal environmental review. Unless this species is listed, requiring the Corps to comply with section 7 of the Act, entire populations of the Newcomb's snail, or portions thereof, could conceivably be eliminated if fill material were discharged into the streams and seeps they occupy.

Federal regulations for the introductions of biocontrol agents have not adequately protected Newcomb's snail in the past. As a result, several non-native aquatic species and two non native fly species, which may be the most serious present threats to the Newcomb's snail's continued existence, were purposefully introduced by the State of Hawaii's Department of Agriculture or other agricultural agencies (Funasaki *et al.* 1988). Currently, our Pacific Islands Office reviews proposals to release biocontrol agents by the Hawaii State Department of Agriculture for potential effects on listed species. However, since post-release biology and host range are difficult to predict from laboratory studies (Gonzalez and Gilstrap 1992; Roderick 1992), the release or augmentation of non native species may pose threats to Newcomb's snail in the future.

*E. Other natural or manmade factors affecting its continued existence.* Because of the small, isolated nature of occurrences of Newcomb's snail, and the few individuals present in most of them, this species is also more susceptible to random events that may affect its continued existence. As indicated above, the six known populations of Newcomb's snail cover very small areas in settings that may be subjected to extreme effects associated with exceptionally heavy rainfall or hurricanes. Hurricanes struck the island of Kauai in 1983 and 1992. Rainfall associated with hurricanes can wash out streams (Polhemus 1993) and create landslides that can alter stream flow (Jones *et al.* 1984). Events such as these could destroy the habitat of Newcomb's snail or physically displace individuals into areas where they cannot survive.

Reduced stream flow due to water development projects, droughts, or other natural or human causes may have several potential negative effects on the ability of Newcomb's snail to complete its life cycle. Loss of water could reduce

or eliminate the habitat of Newcomb's snail and possibly lead to increased intraspecific competition or desiccation and death. Reduced water flow could also lead to increased predation by non native predators. Low flows may allow marsh flies or the rosy glandina snail easier access to individual snails that are otherwise protected by the force of water movement. Droughts are not uncommon in the Hawaiian Islands. Between 1860 and 1986 the island of Kauai was affected by 33 droughts, 20 of which significantly affected the available water supply on the island (Giambelluca *et al.* 1991). The development of water resources also is a continuing issue. These projects divert water from streams, springs and aquifers that may otherwise maintain habitats for Newcomb's snail.

Intentional or accidental introductions of snail predators constitute a significant threat to Newcomb's snail. The State of Hawaii continues to carry out an active program of introductions of biological control agents. These organisms are primarily introduced to control agricultural pests, and their impacts on native species have only recently been considered in evaluating release programs. The marsh flies and the rosy glandina snail are examples of biological control agents that were introduced to Hawaii without adequate assessment of their impact on Newcomb's snail or other native Hawaiian species.

Finally, the combined effects of numerous factors can degrade stream ecosystems, leading to a decline in snail population size and an increase in the likelihood of extinction from naturally occurring or human caused events.

We have carefully assessed the best scientific and commercial information regarding the past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to list the Newcomb's snail (*Erinna newcombi*) as threatened. All populations are threatened or potentially threatened by predation by non native snails, flies, frogs, and fish; habitat destruction or modification from water development or diversion projects; habitat destruction or displacement of individuals by stream wash outs from heavy rainfall or landslides that can alter stream flow; and inadequate existing regulatory mechanisms. Currently, the 6 populations support 6,000 to 7,000 individuals but historical information indicates that the number of populations has been greatly reduced since 1925, perhaps by as much as 60 percent. Perhaps over 90 percent of the

individuals are located in only two populations. The small sizes of four of the six populations and limited distribution make these populations vulnerable to extinction from reduced reproductive vigor or from random environmental events. Because this species is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range, this species fits the definition of threatened as defined in the Act. Therefore, the determination of threatened status for Newcomb's snail is warranted.

#### Critical Habitat

Critical habitat is defined in section 3 of the Act as: (i) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) Essential to the conservation of the species and (II) That may require special management considerations or protection and; (ii) Specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. "Conservation" means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary.

In the proposed rule, we indicated that designation of critical habitat was not prudent for *Erinna newcombi* because of a concern that publication of precise maps and descriptions of critical habitat in the **Federal Register** could increase the vulnerability of this species to incidents of collection and vandalism. We also indicated that designation of critical habitat was not prudent because we believed it would not provide any additional benefit beyond that provided through listing as endangered.

In the last few years, a series of court decisions have overturned Service determinations regarding a variety of species that designation of critical habitat would not be prudent (e.g., *Natural Resources Defense Council v. U.S. Department of the Interior* 113 F. 3d 1121 (9th Cir. 1997); *Conservation Council for Hawaii v. Babbitt*, 2 F. Supp. 2d 1280 (D. Hawaii 1998)). Based on the standards applied in those judicial opinions, we have reexamined the question of whether critical habitat for *Erinna newcombi* would be prudent.

Due the small number of populations, *Erinna newcombi* is vulnerable to unrestricted collection, vandalism, or other disturbance. We remain concerned that these threats might be exacerbated

by the publication of critical habitat maps and further dissemination of locational information. However, we have examined the evidence available for *Erinna newcombi* and have not found specific evidence of taking, vandalism, collection, or trade of this species or any similarly situated species. Consequently, consistent with applicable regulations (50 CFR 424.12(a)(1)(i)) and recent case law, we do not expect that the identification of critical habitat will increase the degree of threat to this species of taking or other human activity.

In the absence of a finding that critical habitat would increase threats to a species, if there are any benefits to critical habitat designation, then a prudent finding is warranted. In the case of this species, there may be some benefits to designation of critical habitat. The primary regulatory effect of critical habitat is the section 7 requirement that Federal agencies refrain from taking any action that destroys or adversely modifies critical habitat. While a critical habitat designation for habitat currently occupied by this species would not be likely to change the section 7 consultation outcome because an action that destroys or adversely modifies such critical habitat would also be likely to result in jeopardy to the species, there may be instances where section 7 consultation would be triggered only if critical habitat is designated. Examples could include unoccupied habitat or occupied habitat that may become unoccupied in the future. There may also be some educational or informational benefits to designating critical habitat. Therefore, we find that critical habitat is prudent for *Erinna newcombi*.

The Final Listing Priority Guidance for FY 2000 (64 FR 57114) states, the processing of critical habitat determinations (prudence and determinability decisions) and proposed or final designations of critical habitat will no longer be subject to prioritization under the Listing Priority Guidance. Critical habitat determinations, which were previously included in final listing rules published in the **Federal Register**, may now be processed separately, in which case stand-alone critical habitat determinations will be published as notices in the **Federal Register**. We will undertake critical habitat determinations and designations during FY 2000 as allowed by our funding allocation for that year. As explained in detail in the Listing Priority Guidance, our listing budget is currently insufficient to allow us to immediately

complete all of the listing actions required by the Act. Deferral of the critical habitat designation for *Erinna newcombi* will allow us to concentrate our limited resources on higher priority critical habitat and other listing actions, while allowing us to put in place protections needed for the conservation of *Erinna newcombi* without further delay.

We plan to employ a priority system for deciding which outstanding critical habitat designations should be addressed first. We will focus our efforts on those designations that will provide the most conservation benefit, taking into consideration the efficacy of critical habitat designation in addressing the threats to the species, and the magnitude and immediacy of those threats. We will develop a proposal to designate critical habitat for the *Erinna newcombi* as soon as feasible, considering our workload priorities.

#### Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain activities. Recognition through listing results in public awareness and conservation actions by Federal, State, and local agencies, private organizations, and individuals. The 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 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 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 in 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer informally with us on any action that is likely to jeopardize the continued existence of a proposed species or result in 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 a listed 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 us.

Federal agency actions that may require conference and/or consultation as described in the preceding paragraph include the Corps authorization of projects such as the construction of drainage diversions, roads, bridges, and dredging projects subject to section 404 of the Clean Water Act (33 U.S.C. 1344 *et seq.*) and section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401 *et seq.*), U.S. Environmental Protection Agency authorization of discharges under the National Pollutant Discharge Elimination System, and projects funded by U.S. Housing and Urban Development or Natural Resource Conservation Service funded projects.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all threatened wildlife. The prohibitions, codified at 50 CFR 17.31, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import or export, transport in interstate or foreign commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

The Act and 50 CFR 17.32 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened animal species under certain circumstances. 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. For threatened species, you may also obtain permits for zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act.

As published in the **Federal Register** on July 1, 1994 (59 FR 34272), our policy is to identify to the maximum extent practicable at the time a species is listed those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effects of the listing on proposed and ongoing activities within a species' range. We believe that, based on the best available information, the following activities will not result in a violation of section 9, provided these activities are

carried out in accordance with existing regulations and permit requirements:

(1) Scientific or recreational activities within the main channel of streams that support populations of Newcomb's snail, but exclusive of the specific sites known to support populations of this snail;

(2) Activities authorized, funded, or carried out by Federal agencies (if the species were found on Federal lands), (e.g., grazing management, agricultural conversions, wetland and riparian habitat modification, flood and erosion control, residential development, recreational trail development, road construction, hazardous material containment and cleanup activities, prescribed burns, pesticide/herbicide application, pipelines or utility lines crossing suitable habitat) when such activity is conducted in accordance with any reasonable and prudent measures given by the Service in a consultation conducted under section 7 of the Act;

Potential activities involving Newcomb's snail that we believe will likely be considered a violation of section 9 include, but are not limited to, the following:

(1) Release, diversion, or withdrawal of water that results in displacement, disruption of breeding or feeding, or death of individual snails;

(2) Actions that lead to the destruction or alteration of the occupied habitat of Newcomb's snail (e.g., in-stream dredging, rock removal, channelization, discharge of fill material, actions that result in siltation of the habitat, and diversion of ground water flow required to maintain the habitat).

(3) Introduction of species that are predators or competitors of aquatic snails, especially non native snails in the family Lymnaeidae and the closely related family Physidae.

(4) Interstate and foreign commerce (commerce across State lines and international boundaries) and import/export (as discussed earlier in this section).

You should direct questions regarding whether specific activities will constitute a violation of section 9 of the Act to the Manager of the Pacific Islands Ecoregion (see **ADDRESSES** section). Requests for copies of the regulations regarding listed wildlife and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Endangered Species Permits, 911 N.E. 11th Avenue, Portland, Oregon 97232-4181 (503/231-6241; facsimile 503/231-6243).

*Hawaii State Law*

As previously stated, Federal listing will automatically invoke listing under the State's endangered species act. State law prohibits taking of listed wildlife and plants in the State and encourages conservation of such species by State agencies and triggers other State regulations to protect the species (HRS, sect. 195AD-4 and 5).

*National Environmental Policy Act*

We have determined that environmental assessments and environmental impact statements, 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 Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

*Paperwork Reduction Act*

This rule does not contain any information collection requirements for which Office of Management and

Budget (OMB) approval under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* is required. An information collection related to the rule pertaining to permits for endangered and threatened species has OMB approval and is assigned clearance number 1018-0094. For additional information concerning permits and associated requirements for threatened species, see 50 CFR 17.32.

*References Cited*

A complete list of all references cited in this rule, as well as other references, is available upon request from the Pacific Islands Ecoregion office (see **ADDRESSES** section).

*Authors*

The primary authors of this final rule are Dr. Steve Miller and Christa Russell, with contributions from Christine Willis, at telephone 808/541-3441 or facsimile 808/541-3470 (see **ADDRESSES** section). Recent data on the distribution of Newcomb's snail was contributed by Dr. Adam Asquith, US Fish and Wildlife Service, Pacific Islands Ecoregion.

**List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

**Regulation Promulgation**

Accordingly, we amend, part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as follows:

**PART 17—[AMENDED]**

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

**Authority:** 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

2. Amend section 17.11(h) by adding the following, in alphabetical order under SNAILS, to the List of Endangered and Threatened Wildlife to read as follows:

**§ 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						
SNAILS							
*	*	*	*	*	*	*	*
Snail, Newcomb's ....	<i>Erinna newcombi</i> ....	U.S.A. (HI) .....	NA .....	T	680	NA	NA
*	*	*	*	*	*	*	*

Dated: December 31, 1999.  
**Jamie Rappaport Clark,**  
 Director, Fish and Wildlife Service.  
 [FR Doc. 00-1828 Filed 1-25-00; 8:45 am]  
**BILLING CODE 4310-55-P**

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Parts 600 and 660**

[Docket No. 991223347-9347-01; I.D. 120299C]

**Magnuson-Stevens Act Provisions; Foreign Fishing; Fisheries off West Coast States and in the Western Pacific; Pacific Coast Groundfish Fishery; Annual Specifications and Management Measures; Corrections**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Corrections to the 2000 specifications for the Pacific Coast groundfish fishery.

**SUMMARY:** This document contains corrections to the 2000 groundfish fishery specifications and management measures for the Pacific Coast groundfish fishery, which were published on January 4, 2000.

**DATES:** Effective January 26, 2000.

**FOR FURTHER INFORMATION CONTACT:** Kate King or Yvonne deReynier, NMFS, 206-526-6140.

**SUPPLEMENTARY INFORMATION:**

**Background**

The 2000 fishery specifications and management measures for groundfish taken in the U.S. exclusive economic zone and state waters off the coasts of Washington, Oregon, and California, as authorized by the Pacific Coast Groundfish Fishery Management Plan, were published in the **Federal Register** on January 4, 1999 (65 FR 221). The

specifications contained a number of errors that need to be corrected.

**Corrections**

In rule FR Doc. 99-33966 beginning on page 221, in the issue of Tuesday, January 4, 2000 (65 FR 221), make the following corrections:

1. On page 239, in the second column, in paragraph (11), delete the paragraph and replace it with "(11) *Operating in both limited entry and open access fisheries.* The open access trip limit applies to any fishing conducted with open access gear, even if the vessel has a valid limited entry permit with an endorsement for another type of gear. A vessel that operates in both the open access and limited entry fisheries is not entitled to two separate trip limits for the same species. If a vessel has a limited entry permit and uses open access gear, and the open access limit is smaller than the limited entry limit, then the open access limit cannot be exceeded and counts toward the limited entry limit. If a vessel has a limited