

(2) The amount of the allotment for each of the 50 States and the District of Columbia, and for each of the Commonwealths and Territories (not including the additional amount for FY 2009 determined under paragraph (c)(2)(ii) of this section) is equal to the product of:

(i) The percentage determined by dividing the amount in paragraph (e)(2)(i)(A) by the amount in paragraph (e)(2)(i)(B) of this section.

(A) The amount of the State allotment for each of the 50 States and the District of Columbia, and for each of the Commonwealths and Territories (not including the additional amount for FY 2009 determined under paragraph (c)(2)(ii) of this section).

(B) The sum of the amounts for each of the 50 States and the District of Columbia, and the Commonwealths and Territories in paragraph (e)(2)(i) of this section.

(ii) The total amount available for allotment for the fiscal year under paragraph (b) of this section

(f) *Allotment increase factor.* The allotment increase factor for a fiscal year is equal to the product of the following:

(1) Per capita health care growth factor. The per capita health care growth factor for a fiscal year is equal to 1 plus the percentage increase in the projected per capita amount of the National Health Expenditures from the calendar year in which the previous fiscal year ends to the calendar year in which the fiscal year involved ends, as most recently published by CMS before the beginning of the fiscal year involved.

(2) *Child Population Growth Factor.* The child population growth factor for a fiscal year is equal to 1 plus the percentage increase (if any) in the population of children in the State from July 1 in the previous fiscal year to July 1 in the fiscal year involved, as determined by CMS based on the most recent published estimates of the Census Bureau available before the beginning of the fiscal year involved plus 1 percentage point. For purposes of determining the Child Population Growth Factor for FY 2009 for the Commonwealths and Territories only, in applying the previous sentence, "United States" is substituted for "the State".

(g) *Increase in State allotment for the 50 States and the District of Columbia for FY 2010 through FY 2013 to account for approved program expansions.* In the case of the 50 States and the District of Columbia, the State allotment for FY 2010 through FY 2013, as determined in accordance with the provisions of this section, may be increased under the following conditions and amounts:

(1) The State has submitted to the Secretary, and has approved by the Secretary a State plan amendment or waiver request relating to an expansion of eligibility for children or benefits under title XXI of the Act that becomes effective for a fiscal year (beginning with FY 2010 and ending with FY 2013); and

(2) The State has submitted to the Secretary, before the August 31 preceding the beginning of the fiscal year, a request for an expansion allotment adjustment under this paragraph for such fiscal year that specifies—

(i) The additional expenditures that are attributable to the eligibility or benefit expansion provided under the amendment or waiver described in paragraph (g)(1) of this section, as certified by the State and submitted to the Secretary by not later than August 31 preceding the beginning of the fiscal year; and

(ii) The extent to which such additional expenditures are projected to exceed the allotment of the State or District for the year.

(3) Subject to paragraph (e) of this section relating to proration, the amount of the allotment of the State or District under this subsection for such fiscal year shall be increased by the excess amount described in paragraph (g)(2)(i). A State or District may only obtain an increase under paragraph (g)(2)(ii) of this section for an allotment for FY 2010 or FY 2012.

(h) *CHIP Fiscal Year Allotment Process.* As determined by the Secretary, the CHIP allotments for a fiscal year may be published as Preliminary Allotments or Final Allotments in the **Federal Register**.

#### § 457.610 [Amended]

5. Amend the section heading for § 457.610 by—

A. Removing the section heading by removing the words "for a fiscal year" and adding in its place "prior to FY 2009".

B. Removing the words "for a fiscal year" and add in its place add "prior to FY 2009" in the first line of the paragraph.

6. Add a new § 457.611 to subpart F to read as follows:

#### § 457.611 Period of availability for State allotments for a fiscal year after FY 2008.

The amount of a final allotment for a fiscal year after FY 2008, as determined under § 457.609 and reduced to reflect certain Medicaid expenditures in accordance with § 457.616, remains available until expended for Federal payments based on expenditures

claimed during a 2-year period of availability, beginning with the fiscal year of the final allotment and ending with the end of the succeeding fiscal year following the fiscal year.

**Authority:** (Section 1102 of the Social Security Act (42 U.S.C. 1302)

(Catalog of Federal Domestic Assistance Program No. 93.778, Medical Assistance Program)

(Catalog of Federal Domestic Assistance Program No. 93.767, State Children's Health Insurance Program)

Dated: June 19, 2009.

**Charlene Frizzera,**

*Acting Administrator, Centers for Medicare & Medicaid Services.*

Approved: July 29, 2009.

**Kathleen Sebelius,**

*Secretary.*

[FR Doc. E9-22162 Filed 9-15-09; 8:45 am]

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## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

[Docket No. FWS-R1-ES-2008-0073; 14420-1113-0000-C6]

#### Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to Remove the Bliss Rapids Snail (*Taylorconcha serpenticola*) From the List of Endangered and Threatened Wildlife

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of 12-month petition finding.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce a 12-month finding on a petition to remove the Bliss Rapids snail (*Taylorconcha serpenticola*) from the Federal List of Endangered and Threatened Wildlife (List) pursuant to the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*). Based on a thorough review of the best scientific and commercial data available, the species continues to be restricted to a small geographic area in the middle-Snake River, Idaho, where it is dependent upon cool-water spring outflows. Although some threats identified at the time of listing in 1992 no longer exist or have been moderated, ground water depletion and impaired water quality still threaten the Bliss Rapids snail. In addition, there are significant uncertainties about the effects of hydropower operations and New Zealand mudsnails on the

persistence of Bliss Rapids snails in riverine habitats. In the absence of the Act's protections, existing regulations are not likely to be sufficient to conserve the species. Given our current understanding of the species' geographic distribution, habitat requirements, and threats, the species continues to meet the definition of a threatened species under the Act. Therefore, we have determined that removing the Bliss Rapids snail from the List is not warranted at this time.

**DATES:** We made the finding announced in this document September 16, 2009.

**ADDRESSES:** This notice is available on the Internet at <http://www.fws.gov/idaho> and at <http://www.regulations.gov> at Docket No. FWS-R1-ES-2008-0073. Supporting documentation we used in preparing this notice will be available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Idaho Fish and Wildlife Office, 1387 S. Vinnell Way, Room 368, Boise, ID 87309; telephone (208) 378-5243; facsimile (208) 378-5262. New information, materials, comments, or questions concerning this species may be submitted to the Service at the above address.

**FOR FURTHER INFORMATION CONTACT:** Jeff Foss, Field Supervisor, U.S. Fish and Wildlife Service, Idaho Fish and Wildlife Office, (see **ADDRESSES** section). If you use a telecommunications device for the deaf (TDD), you may call the Federal Information Relay Service (FIRS) at 800-877-8339.

#### **SUPPLEMENTARY INFORMATION:**

##### **Species Information**

The Bliss Rapids snail was first collected in 1959 at the Thousand Springs Preserve in Idaho's Snake River by Dwight Taylor (57 FR 59244; December 14, 1992) and formally described by Hershler *et al.* (Hershler *et al.* 1994, p. 235) as *Taylorconcha serpenticola* in 1994. The Bliss Rapids snail grows to approximately 0.08 to 0.16 inches (2.0 to 4.0 millimeter (mm)) in height. The shell is clear to white but appears to have two morphs due to coloration of the periostracum (the shell's outer layer). The periostracum can be very light tan to dark brown-red resulting in the "pale" and "orange" forms, respectively. The Bliss Rapids snail has approximately 3.5 to 4.5 whorls (turn or curl in the shell) with the protoconch (apex or top of the shell) comprising about 1.5 whorls. The apex (the highest point of the shell) is blunt.

Bliss rapids snails hatch, reproduce, and die in a single year (Hershler *et al.* 1994, pp. 239, 240). They are dioecous,

having strictly male and female individuals and may exhibit an iteroparous (more than one reproductive event in an individual's lifetime) reproductive strategy (Richards 2004, p. 119). The timing of reproduction apparently varies by habitat-type. Egg-laying normally occurs in spring colonies between December and March, while in river colonies egg laying occurs in January and February (Hershler *et al.* 1994, p. 239). Eggs are laid singly, in small capsules attached to the bottoms or sides of rocks (Hershler *et al.* 1994, p. 239). Emergence of young typically takes place a few weeks after egg deposition depending on water temperature (Dillon 2000, p. 103), but specific timing and temperature information is lacking.

Bliss Rapids snails primarily consume epilithic periphyton (diatom films that primarily grow on rock surfaces), as do many freshwater snails (Richards 2006b). They may also consume quantities of detritus, bacteria, and protozoa embedded in the simple sugar matrix (*i.e.*, the periphyton) on the surfaces of benthic (bottom) substrates.

##### *Range*

At the time of listing in 1992, the distribution of the Bliss Rapids snail was thought to be discontinuous over 204 miles of the Snake River in Idaho, between King Hill (river mile (RM) 546) and Lower Salmon Falls Dam (RM 573) with a disjunct occurrence at RM 749. The species' distribution upstream of Upper Salmon Falls Reservoir was known to be localized to spring complexes (*i.e.*, Thousand Springs (RM 585), Minnie Miller Springs (RM 585), Banbury Springs (RM 589), Niagara Springs (RM 599), and Box Canyon Springs (RM 588)) (57 FR 59244; December 14, 1992). This range was based on approximately 14 spring/tributary collection points (Richards *et al.* 2006, p. 33). The reported occurrence at RM 749 is now regarded as erroneous because: (1) Samples from this collection have not been located to verify the occurrence (Frest 2002); (2) the reported collection site is 150 river miles upstream of the known distribution of the species (Pentec 1991 in 57 FR 59244); and, (3) numerous collection efforts in and above American Falls Reservoir (U.S. Bureau of Reclamation (USBR) 2003; USBR 2004; USBR 2005; Gregg 2006), and in the upper Snake River (Fields 2006) have all failed to document the occurrence of the species.

The current known range of the Bliss Rapids snail is similar to what was described at the time of listing (minus the erroneous location at American Falls

Reservoir). Increased sampling effort has documented its presence at many more locations within its range. Based on 837 sample events conducted by the Idaho Power Company (IPC), the Bliss Rapids snail is documented to occur within the non-reservoir sections of the middle Snake River from approximately RM 547 to RM 572, and RM 580 (Richards *et al.* 2006, pp. 33-38). This represents a refined distribution since the time of listing in 1992 due to more accurate survey data.

Bliss Rapids snails are also known to occur in 14 springs or Snake River tributary streams (from RM 552.8 to RM 604.5) derived from cold water springs including: Bancroft Springs; Thousand Springs and Minnie Miller Springs (Thousand Springs Preserve); Banbury Springs; Niagara Springs; Crystal Springs; Briggs Springs; Blue Heart Springs; Box Canyon Creek; Riley Creek; Sand Springs Creek; Elison Springs; the Malad River; Cove Creek (a tributary to the Malad River); and the headwater springs to Billingsley Creek (Richards *et al.* 2006, p. 2; USFWS 2008a, p. 6).

The U.S. Geological Survey (USGS) reported finding several Bliss Rapids snails at Blue Lakes (approximately Snake River mile 610.4) in 1994, but surveys of this site in 1996 and 2007 did not locate the species (Mebane 2007, Grotheer 2008). Over 200 springs or spring clusters have been mapped or identified on the north side of the Snake River canyon (Clark and Ott 1996, p. 559) where the Bliss Rapids snail has been documented to occur. Springs also occur on the south side of the Snake River canyon (Clark and Ott 1996, p. 559), but studies conducted by the Idaho Power Company (IPC) have not observed Bliss Rapids colonies in springs or tributaries on the south side (Bates and Richards 2008). The species is likely present at additional springs on private lands that have not been sampled (*e.g.*, Hopper 2006b).

In summary, we now know the Bliss Rapids snail to be distributed discontinuously over 22 miles, from RM 547-560, RM 566-572, and at RM 580 on the Snake River and to occur in 14 springs or tributaries to the Snake River. The area between RM 561-565 represents reservoir areas where the Bliss Rapids snail does not occur. The species' overall geographic range has not substantially changed since it was first described by Hershler *et al.* (1994), but the species has been detected at more locations within its range.

##### *Habitat Use*

The Bliss Rapids snail occurs in cold water springs and spring-fed tributaries to the Snake River (hereafter referred to

as spring colonies), and in some reaches of the Snake River (hereafter referred to as river colonies). Available data indicate that spring colonies are consistently larger, at least in terms of density and relative abundance, than river colonies (Stephenson and Bean 2003, pp. 12, 18; Stephenson *et al.* 2004, p. 24; Richards *et al.* 2006, pp. 97–99). The species is absent from reservoirs (Hershler *et al.* 1994, p. 237; Finni 2003, p. 28; Richards *et al.* 2006, p. 35), patchily distributed and in low densities in the mainstem Snake River (Stephenson *et al.* 2004, pp. 11, 22, 24; Richards *et al.* 2006, p. 37), and relatively abundant, though patchily distributed in spring habitats (Stephenson and Bean 2003, pp. 12, 18; Richards 2004, pp. 59–69; Richards *et al.* 2006, p. 37).

The Bliss Rapids snail is known to occur on stable, cobble substrates in unimpounded sections of the mainstem Snake River (Richards *et al.* 2006, pp. 35, 41), on cobble-boulder substrates in the Malad River (Stephenson and Clark 2004, p. 33), and on various substrates in several spring complexes (Stephenson and Myers 2003, p. 5). The species is generally not found in, or on, very fine (silt) sediments (Hershler *et al.* 1994, p. 237; Richards *et al.* 2006, p. 23), but has been documented infrequently on sand and gravel (Stephenson and Myers 2003, p. 5), aquatic vegetation (Lysne 2006), and coarse woody debris (Hopper 2006a, Lysne 2006). A notable exception to this characterization of habitat use is the presence of Bliss Rapids snails on fine sediments (silt/gravel) at the upper pool in Cove Creek (Stephenson and Myers 2003, p. 5), a cold water spring creek tributary to the Malad River. Overall, the cobble-boulder substrate is considered to be the dominant habitat type where the Bliss Rapids snail is found (Richards *et al.* 2006, p. 51).

Field studies and observations have demonstrated that the species uses the sides and bottoms of cobbles preferentially to the exclusion of cobble tops (Richards 2004, pp. 32–34). The Bliss Rapids snail is found at various water depths in springs ranging from 0.3 to 3 feet (0.1–1 meters (m)), and in spring-fed tributary habitats ranging from 0.07 to 3.35 feet (0.02–1.02 m) (Stephenson and Myers 2003, pp. 23–35; Stephenson and Clark 2004, p. 32). This species has also been documented to occur at depths up to 20 feet (6.1 m) in the mainstem Snake River (Richards *et al.* 2006, p. 52). Most Bliss Rapids snails are found in less than 3 feet (0.9 m) of water (Richards *et al.* 2006, p. 43) but this could be due to sampling effort.

The Bliss Rapids snail has been collected in water temperatures ranging from 44.6 to 69.8 degrees Fahrenheit (F) (7 to 21 degrees Celsius (C)) (Finni 2003, p. 14; Clark *et al.* 2005, p. 55), but is generally found in water temperatures between 59 and 60.8 degrees F (15 and 16 degrees C) (Hershler *et al.* 1994, p. 237). Richards *et al.* (2001, p. 377) collected Bliss Rapids snails from Banbury Springs in thermally constant waters measuring 55.2 to 61.5 degrees F (12.9 to 16.4 degrees C), and Stephenson and Clark (2004, p. 32) collected the species from the Malad River in water measuring 57.2 to 59.0 degrees F (14 to 15 degrees C).

Richards *et al.* (2006, pp. 39–51) analyzed the physio-chemical data from all IPC collections in river, spring, and spring-influenced sites and determined the probability of encountering Bliss Rapids snails for various parameters. The best predictors of Bliss Rapids snail presence (*i.e.*, having statistically significant regression values based on large samples), in order of significance, were dominant substrate, conductivity (a measure of total dissolved solids), depth, dissolved oxygen, and temperature (Richards *et al.* 2006, p. 41).

In summary, based on available information, the Bliss Rapids snail occurs in riverine and spring or spring-influenced habitats but is not known to occur in reservoir habitats. It is known from the Snake River (22 miles), the Malad River (1 mile), Cove Creek (0.4 mile), and in 14 springs. In the Snake River the species is predominately associated with cobble-boulder substrates; substrate use in spring complexes is more variable. The species is generally not found in, or on, very fine sediments. It has been collected at various water depths in springs ranging from 0.3 to 3 feet (0.1–0.9 m), and in spring-fed tributary habitats ranging 0.07 to 3.35 feet (0.02–1.02 m). This species has also been documented to occur at depths up to 20 feet (6.1 m) in the mainstem Snake River. Most Bliss Rapids snails are found in less than 3 feet (0.9 m) of water, but this may be an artifact of sampling effort rather than true habitat selection. The species has been observed in water temperatures ranging from 44.6 to 69.8 degrees F (7 to 21 degrees C), but is generally found in water temperatures between 59 and 60.8 degrees F (15 and 16 degrees C).

#### *Densities and Relative Abundance*

It is difficult to estimate the density and relative abundance of Bliss Rapids snail colonies. The species is documented to reach high densities in cold-water springs and tributaries in the

Hagerman reach of the middle Snake River (Stephenson and Bean 2003, pp. 12, 18; Stephenson *et al.* 2004, p. 24), whereas colonies in the mainstem Snake River (Stephenson and Bean 2003, p. 27; Stephenson *et al.* 2004, p. 24) tend to have lower densities (Richards *et al.* 2006, p. 37). Bliss Rapids snail densities in Banbury Springs averaged approximately 32.53 snails per square foot (350 snails per square meter) on three habitat types (vegetation, edge, and run habitat as defined by Richards *et al.* 2001, p. 379). Densities greater than 790 snails per square foot (5,800 snails per square meter) have been documented at the outlet of Banbury Springs (Morgan Lake outlet) (Richards *et al.* 2006, p. 99).

In an effort to account for the high variability in snail densities and their patchy distribution, researchers have used predictive models to give more accurate estimates of population size in a given area (Richards 2004, p. 58). In the most robust study to date, predictive models estimated between 200,000 and 240,000 Bliss Rapids snails in a study area measuring 58.1 square feet (625 square meters) in Banbury Springs, the largest known colony (Richards 2004, p. 59). Due to data limitations, this model has not been used to extrapolate population estimates to other spring complexes, tributary streams, or mainstem Snake River colonies. However, with few exceptions (*i.e.*, Thousand Springs and Box Canyon), Bliss Rapids snail colonies are much smaller in areal extent than the colony at Banbury Springs, occupying only a few square feet.

#### **Previous Federal Actions**

The Service listed the Bliss Rapids snail as threatened on December 14, 1992 (57 FR 59244). At that time it was an undescribed monotypic genus in the family Hydrobiidae. Subsequent research in 1994 formalized its taxonomic status and its scientific name—*Taylorconcha serpenticola* (Hershler *et al.* 1994).

Based on the best available data at the time of listing, we determined that the Bliss Rapids snail was threatened by: proposed construction of new hydropower dams, the operation of existing hydropower dams, degraded water quality, water diversions, the introduced New Zealand mudsnail (*Potamopyrgus antipodarum*), and the lack of existing regulatory protections (57 FR 59244). In 1995, we published the Snake River Aquatic Species Recovery Plan (Plan), which included the Bliss Rapids snail (USFWS 1995). Critical habitat has not been designated for this species.

On July 27, 2004, we initiated a 5-year status review for the species in accordance with section 4(c)(2) of the Act (69 FR 44676). On December 26, 2006, the Service received a petition from the Governor of Idaho and IPC requesting that the Bliss Rapids snail be removed from the List. On June 6, 2007, the Service published a **Federal Register** notice announcing that the petition presented substantial scientific information indicating that removing the Bliss Rapids snail from the List may be warranted, and the initiation of a 12-month status review of the species to be conducted concurrent with our 5-year status review (72 FR 31250). A 30-day peer review was completed in January 2008, on the draft status review document of the best available information and scientific literature (USFWS 2008a).

As part of the 12-month status review, we used a structured decision analysis process (USFWS 2008b) to assist us in making our 12-month finding. A component of the structured decision analysis was the formation of an expert scientific review panel that provided us with information regarding the current status of the species and primary threats. The Service reopened the public comment period on its 90-day finding from August 12 to August 27, 2008 (73 FR 46867), to allow the public to access and provide comments on the scientific review panel's results and other documents. No additional comments were received.

### Summary of Factors Affecting the Species

Section 4 of the Act (16 U.S.C. 1533 *et seq.*) and implementing regulations (50 CFR part 424) set forth procedures for adding species to, removing species from, or reclassifying species on the Federal List of Endangered and Threatened Wildlife. Section 4(b)(3)(A) of the Act requires that for any petition containing substantial scientific and commercial information that listing, delisting, or reclassification may be warranted, we make a finding within 12 months of receiving the petition, on whether the petitioned action is: (a) Not warranted; (b) warranted; or (c) warranted, but that immediate proposal of a regulation implementing the petitioned action is precluded by other pending proposals to determine whether other species are threatened or endangered.

Under section 4 of the Act, a species may be determined to be endangered or threatened on the basis of any of the following five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B)

overutilization for commercial, recreation, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We must consider these same five factors in delisting a species. We may delist a species according to 50 CFR 424.11(d) if the best available scientific and commercial data indicate that the species is neither endangered nor threatened for the following reasons: (1) The species is extinct; (2) the species has recovered and is no longer endangered or threatened; or (3) the original scientific data used at the time the species was classified were in error.

A species is "endangered" for purposes of the Act if it is in danger of extinction throughout all or "a significant portion of its range" and is "threatened" if it is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. The word "range" in the significant portion of its range (SPR) phrase refers to the range in which the species currently exists. The word "significant" in the SPR phrase refers to the value of that portion to the conservation of the species. For the purposes of this analysis, we will evaluate whether the currently listed species, the Bliss Rapids snail, should be considered threatened or endangered. Then we will consider whether there are any portions of the species' range in which it is in danger of extinction or likely to become endangered within the foreseeable future.

#### *Factor A. The Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range*

##### Construction of New Hydropower Dams

In our 1992 final rule listing the Bliss Rapids snail as a threatened species, we stated: "Six proposed hydroelectric projects, including two high dam facilities, would alter free flowing river reaches within the existing range of [the Bliss Rapids snail]. Dam construction threatens the [Bliss Rapids snail] through direct habitat modification and moderates the Snake River's ability to assimilate point and non-point pollution. Further hydroelectric development along the Snake River would inundate existing mollusk habitats through impoundment, reduce critical shallow, littoral shoreline habitats in tailwater areas due to operating water fluctuations, elevate water temperatures, reduce dissolved oxygen levels in impounded sediments, and further fragment remaining

mainstem populations or colonies of [the Bliss Rapids snail]" (57 FR 59251).

Proposed hydroelectric projects discussed in the 1992 final listing rule are no longer moving forward. The A.J. Wiley project and Dike Hydro Partners preliminary permits have lapsed; the Kanaka Rapids, Empire Rapids, and Boulder Rapids permits were denied by the Federal Energy Regulatory Commission (FERC) in 1995; there was a notice of surrender of the preliminary permit for the River Side Project in 2002; and two other proposed projects, the Eagle Rock and Star Falls Hydroelectric Projects, were denied preliminary permits by the FERC. In 2003, a notice was provided of surrender of the preliminary permit for the Auger Falls Project. Information provided by the State of Idaho indicates that all proposals and preliminary permits for the construction of new dams along the mid-Snake River have either lapsed or been denied by the FERC (Caswell 2006).

##### Operation of Existing Hydropower Dams

In the December 14, 1992, final listing rule we stated: "Peak-loading, the practice of artificially raising and lowering river levels to meet short-term electrical needs by local run-of-the-river hydroelectric projects also threatens [the Bliss Rapids snail]. Peak-loading is a frequent and sporadic practice that results in dewatering mollusk habitats in shallow, littoral shoreline areas \* \* \* these diurnal water fluctuations [prevent the Bliss Rapids snail] from occupying the most favorable habitats" (57 FR 59252). The Bliss Rapids snail occurs in riverine and spring or spring-influenced habitats but is not known to occur in reservoir habitats. Peak loading operations within the range of river colonies of the Bliss Rapids snail occur below the Bliss Dam (RM 560) and the Lower Salmon Falls Dam (RM 573) (USFWS 2004, pp. 19, 20). For example, at the Bliss Dam (Stephenson and Bean 2003, p. 30) the Snake River can experience daily fluctuation of water levels from hydropower generating activities (peak loading) up to 7 feet (2.1 m). It appears that Bliss Rapids snails are found primarily in areas less than 3 feet (0.9 m) deep, although this may be an artifact of more intensive sampling at shallow depths (Richards *et al.* 2006, pp. 43, 52–56). Nevertheless, our current understanding based on the best available information, is that a majority of Bliss Rapids snails in the Snake River occupy shallow water. Furthermore, Bliss Rapids snails in these shallow-water areas are susceptible to the effects from peak loading operations, including desiccation and freezing when water

levels drop and expose snails to atmospheric conditions.

Laboratory studies have shown that peak-loading during winter months, a time when the species is reproducing, is likely to result in mortality of individual Bliss Rapids snails. Air temperatures within the range of Bliss Rapids snails in Idaho regularly fall below 32 degrees F (0 degrees C) between November and March (Richards 2006a, p. 28). In a laboratory study conducted by Richards (2006a, p. 12), half of the Bliss Rapids snails subjected to a temperature of 19 degrees F (minus 7 degrees C) died in less than an hour. In a field study, Richards (unpublished data, cited in Richards *et al.* 2006, pp. 125–126) found that Bliss Rapids snails could survive for many hours to several days in moist conditions (*i.e.*, undersides of cobbles) and when air temperatures were above freezing (32 degrees F (0 degrees C)) (Richards *et al.* 2006, p. 125). Although the mortality rate outside of these conditions has not been documented in field studies or after an actual peak loading event, work by other researchers, utilizing laboratory-controlled aquaria, found Bliss Rapids snail mortality to be up to 100 percent under conditions characteristic (winter low and summer high temperatures) of some hydropower operations in the middle Snake River (Richards and Kerans 2007, p. 4). Based on the above information, peak loading likely affects individual Bliss Rapids snails through desiccation and freezing but the effects of peak loading on the survival of Bliss Rapids snail colonies in riverine habitats is unknown at this time.

#### Degraded Water Quality

In the 1992 final listing rule we stated: “The quality of water in [snail] habitats has a direct effect on the species survival. The [Bliss Rapids snail] require[s] cold, well-oxygenated unpolluted water for survival. Any factor that leads to deterioration in water quality would likely extirpate [the Bliss Rapids snail]” (57 FR 59252). New information has become available indicating some improvements to Snake River water quality. Significant nutrient and sediment reduction has occurred in the Snake River following implementation of the Idaho Nutrient Management Act and regulated Total Maximum Daily Load (TMDL) reductions from the mid-1990s to the present (Richards *et al.* 2006, pp. 5–6, 86). The Mid-Snake River reach also receives a large infusion of clean, cold-water spring flows and supports the highest densities and occurrence of Bliss Rapids snails.

Hypereutrophy (planktonic algal blooms and nuisance rooted aquatic plant growths), prior to listing in 1992, was very severe during drought cycles when deposition of sediments and organic matter blanketed river substrate often resulting in unsuitable habitat conditions for Bliss Rapids snails. Although some nutrient and sediment reduction has been documented in the Snake River since listing (Richards *et al.* 2006, p. 5), there are still large inflows of agriculture and aquaculture runoff entering the river at Twin Falls to Lower Salmon Falls dam (RM 573). As a result, nutrient and sediment concentrations can be relatively high in this portion of the river, especially during lower summer flows (Richards *et al.* 2006, p. 91).

Phosphorus concentrations, the key nutrient leading to hypereutrophic conditions in the middle Snake River, exceeded Environmental Protection Agency (USEPA) guidelines for the control of nuisance algae at numerous locations along the Snake River from 1989 to 2002, including areas immediately upstream of Bliss Rapids snail colonies (Hardy *et al.* 2005, p. 13). Several water quality assessments have been completed by the USEPA, USBR, and IPC, and all generally agree that water quality in the Snake River of southern Idaho meets Idaho water quality standards for aquatic life for some months of the year, but may not meet these standards when temperatures are high and flows are low (Meitl 2002, p. 33). Idaho Department of Environmental Quality’s (IDEQ) 2005 performance and progress report to the USEPA states that projects are meeting the Idaho non-point source pollution program goals (IDEQ 2006, 115 pp.). Others report that water quality has not improved appreciably between 1989 and 2002 (Hardy *et al.* 2005, pp. 19–21, 49, 51).

Several reaches of the Snake River are classified as water-quality-impaired due to the presence of one or more pollutants (*e.g.*, Total Phosphorus (TP), sediments (TSS), total coliforms) in excess of State or Federal guidelines. Nutrient-enriched waters primarily enter the Snake River via springs, tributaries, fish farm effluents, municipal waste treatment facilities, and irrigation returns (USEPA 2002, pp. 4–18 to 4–24). Irrigation water returned to rivers is generally warmer, contains pesticides or pesticide byproducts, has been enriched with nutrients from fish farms and land-based agriculture (*e.g.*, nitrogen and phosphorus), and frequently contains elevated sediment loads. Pollutants in fish farm effluent include nutrients derived from

metabolic wastes of the fish and unconsumed fish food, disinfectants, bacteria, and residual quantities of drugs used to control disease outbreaks. Furthermore, elevated levels of fine sediments, nitrogen, and trace elements (including cadmium, chromium, copper, lead, and zinc), have been measured immediately downstream of several aquaculture discharges (Hinson 2003, pp. 44–45). Additionally, concentrations of lead, cadmium, and arsenic have been previously detected in snails collected during a research study in the Snake River (Richards 2002). The effects of these elevated levels of nutrients and trace elements on Bliss Rapids snails, both individually and synergistically, are not fully understood. However, studies have shown another native Snake River snail, the Jackson Lake springsnail (*Pyrgulopsis robusta*), to be relatively sensitive to copper (a common component in algicides) and pentachlorophenol, a restricted use pesticide/wood preservative (Ingersoll 2006), and Bliss Rapids snails are known to be highly sensitive to copper, ammonia, and pentachlorophenol (Besser *et al.* 2008).

#### Water Diversions and Ground Water Withdrawals

Threats to cold water spring-influenced habitats from ground water withdrawal and diversions for irrigation and aquaculture are not as they were perceived when the Bliss Rapids snail was listed in 1992. At the time the species was listed in 1992, the threat from ground water withdrawal was identified only at Box Canyon, and the scope of this threat was underestimated. Based on the best available data, we now know that this threat is likely to affect the Bliss Rapids snail throughout its range. In concert with the historical losses of habitat to surface diversions of spring water for irrigation and aquaculture, the continuing decline of the groundwater aquifer is one of the primary threats to the long-term viability of the Bliss Rapids snail.

Average annual spring flows increased from about 4,400 cubic feet per second (cfs) in 1910, to approximately 6,500 cfs in the early 1960s, because widespread flood irrigation caused artificial recharge of the aquifer (Richards *et al.* 2006, pp. 84, 87). As a result of more efficient irrigation practices from 1960 to the present (*i.e.*, switching from flood irrigation or direct surface diversion to more efficient center-pivot irrigation systems utilizing ground water), more water was pumped from the aquifer while water percolation into the aquifer

declined, resulting in declines (from the high values of the 1960s) in average annual spring flows to about 5,000 cfs (Richards *et al.* 2006, pp. 84, 87). Although the current spring flow levels are total about 15 percent higher than average spring flows measured in 1910, they are declining. We anticipate spring flows will likely continue to decline in the near future, even as water-conservation measures are implemented and are being developed as water demands in the vicinity continue to increase (USFWS 2008b).

The State of Idaho has taken steps to improve ground water recharge and limit new ground water development within the eastern Snake River plain; however, the Snake River Plain aquifer level continues to decline (USFWS 2008b). Effects from the over-allocation of ground water and the subsequent declining ground water levels appear to be more of a threat than previously thought. Evidence indicates that springs from the Eastern Snake River Aquifer where the Bliss Rapids snail resides depend on ground water levels and that the ground water levels are declining (USFWS 2008b) even with ongoing measures attempting to address the decline (Caswell 2007). Spring sites are important since Bliss Rapids snail colonies that occur in springs have been shown to be a source of genetic diversity to riverine colonies and to contain four times as many private (*i.e.*, unique) alleles ( $n=16$ ) compared to riverine populations (Liu and Hershler 2009, p. 1296). Colonies in springs or at their outflows are also the most dense, may account for most of the reproductive output of the species, and likely act as refugia from competition with invasive New Zealand mudsnails (*see* Factor E, below). Finally, if spring colonies are lost, particularly those at the upstream end of the species' distribution, the probability of recolonization is likely to be extremely small (USFWS 2008b).

*Summary of Factor A:* Our understanding of the threats to the Bliss Rapids snail has changed since we listed the species in 1992. Some threats are now known to be removed (*i.e.*, new hydropower dam construction) while other threats have emerged (*i.e.*, depletion of groundwater that supports the spring colonies). All proposals for the construction of new hydropower dams have either expired or been withdrawn. The Bliss Rapids snail occurs in riverine and spring or spring-influenced habitats, but is not known to occur in reservoir habitats. Some colonies of Bliss Rapids snails are known to occur in shallow-water areas that are susceptible to peak loading operations (*i.e.*, below the Bliss Dam

(RM 560) and the Lower Salmon Falls Dam (RM 573)). Individual snails may be affected by desiccation and freezing when water levels drop and expose snails to atmospheric conditions, but the effects on these colonies are unknown. Water quality appears to have improved in the Snake River, but new research has indicated that the species is sensitive to the toxic effects of some aquatic contaminants such as copper, which is known to be used in aquaculture and discharged from facilities into the Snake River. Springs or spring-influenced habitats are vulnerable from the effects of ongoing and anticipated future ground water depletion and degraded ground water quality. Spring flows at several occupied spring sites have been declining due to continued ground water withdrawal from the Eastern Snake River Plain Aquifer. If spring colonies are lost, it is unlikely that areas would be recolonized and a loss of occupied springs may reduce genetic diversity and eliminate rare alleles. Spring colonies are also important as they may provide refugia from competition with New Zealand mudsnails (*see* Factor E, below). Therefore, destruction, modification, or curtailment of the Bliss Rapids snail's habitat or range is an ongoing primary threat to the Bliss Rapids snail that is likely to contribute to the species becoming endangered in the foreseeable future.

*Factor B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes*

Based on the best available scientific and commercial information, we believe that overutilization for commercial, recreational, scientific or educational purposes is not currently placing the Bliss Rapids snail in danger of extinction, and is not likely to result in the endangerment or extinction of the species in the foreseeable future. There is no known commercial or recreational use of the species and collections for scientific or educational purposes are likely limited in scope and extent. While collection could result in mortality of individuals within a small area, it is unlikely to have a population level effect because only a few individuals and institutions are interested in collecting a small number of individuals of the species.

*Factor C. Disease or Predation*

Parasitic trematodes similar to those of the genus *Microphallus* have been identified in some freshwater snails in Idaho (*e.g.*, *Pyrgulopsis robusta*); however, the occurrence of trematode

parasites in Bliss Rapids snail has not been studied (Dybdahl *et al.* 2005, p. 8).

Predators of the Bliss Rapids snail have not been documented, but we assume that some predation by native and nonnative species occurs. Predation on aquatic snails by crayfish and fish is well documented (Lodge *et al.* 1994, p. 1265; Martin *et al.* 1992, p. 476; Merrick *et al.* 1992, p. 225; Lodge *et al.* 1998, p. 53).

Based on the best available scientific and commercial information, disease or predation is not currently threatening the viability of the Bliss Rapids snail and is not expected to threaten its viability in the foreseeable future.

*Factor D. Inadequacy of Existing Regulatory Mechanisms*

In the 1992 final listing rule, we found inadequate regulatory mechanisms to be a threat because: (1) Regulations were inadequate to curb further water withdrawal from ground water spring outflows or tributary spring streams; (2) it was unlikely that pollution control regulations would reverse the trend in nutrient loading in the near future; (3) there was a lack of State-mandated protections for invertebrate species in Idaho; and (4) regulations did not require FERC or the U.S. Army Corps of Engineers to address Service concerns regarding licensing hydroelectric projects or permitting projects under the Clean Water Act (CWA) for unlisted snails. Below, we address each of these concerns in turn.

*Ground Water Withdrawal Regulations*

The Idaho Department of Water Resources (IDWR) manages water in the State of Idaho. Among the IDWR's responsibilities is the development of the State Water Plan (IDWR 2006a). The State Water Plan was updated in 1996 and included a table of Federally threatened and endangered species in Idaho, such as the Bliss Rapids snail. The State Water Plan outlines objectives for the conservation, development, management, and optimum use of all unappropriated waters in the State. One of these objectives is to "maintain, and where possible enhance water quality and water-related habitats" (IDWR 2006a). It is the intent of the State Water Plan that any water savings realized by conservation or improved efficiencies is appropriated to other beneficial uses (*e.g.*, agriculture, hydropower, or fish and wildlife).

Another IDWR regulatory mechanism is the ability of the Idaho Water Resource Board to designate "in-stream flows" (IDWR 2006b). The IDWR currently has 89 licensed water rights for minimum in-stream flows in Idaho

(IDWR 2006b). Of these, 11 potentially have conservation benefits for Bliss Rapids snails (*i.e.*, provide for minimum in-stream flows near tributary spring outflows that provide habitat for Bliss Rapids snails). However, individuals that hold water rights with earlier priority dates have the right to fill their needs before the minimum stream flow is considered. If there is not enough water available to satisfy all of the water rights, then the senior water rights are satisfied first, and so on in order, until there is no water left. It is the junior water right holders that do not get water when there is not enough to satisfy all the water rights. Senior diversions can legally dewater the stream in a drought year or when low flows occur, leaving no water for the minimum stream flow (IDWR 2009), therefore impacting species such as the Bliss Rapids snail.

The IDWR and other State agencies have also created additional regulatory mechanisms that limit future surface and ground water development; they include the continuation of various moratoria on new consumptive water rights and the designation of Water Management Districts (Caswell 2007). The State is attempting to stabilize aquifer levels and enhance cold water spring outflows from the Eastern Snake River Plain by implementing water conservation measures to be proposed in the Comprehensive Aquifer Management Plan (CAMP) for this area (Barker *et al.* 2007). The goal of the CAMP is to “sustain the economic viability and social and environmental health of the Eastern Snake Plain by adaptively managing a balance between water use and supplies.” The CAMP will include several alternatives in an attempt to increase water supply, reduce withdrawals from the aquifer, and decrease overall demand for groundwater (Barker *et al.* 2007).

In addition, the State of Idaho established moratoria in 1993 (the year after listing of the Bliss Rapids snail) that restricted further surface-water and groundwater withdrawals for consumptive uses from the Snake River Plain aquifer between American Falls Reservoir and C.J. Strike Reservoir. The 1993 moratoria were extended by Executive Order in 2004 (Caswell 2006, attachment 1). However, these actions have not yet resulted in stabilization of aquifer levels. Depletion of spring flows and declining groundwater levels are a collective effect of drought conditions, changes in irrigation practices (the use of central-pivot sprinklers contribute little to groundwater recharge), and groundwater pumping (University of Idaho 2007). The effects of groundwater pumping downstream in the aquifer can

affect the upper reaches of the aquifer, and the effects of groundwater pumping can continue for decades after pumping ceases (University of Idaho 2007).

Thus, we anticipate groundwater levels will likely continue to decline in the near future, even as water-conservation measures are implemented, and are being developed. Furthermore, species associated with these springs that are dependent upon the presence of water, such as the Bliss Rapids snail, will likely experience local extinctions without the opportunity for recolonization (USFWS 2008b). Loss of a colony from any individual habitat patch, without subsequent recolonization, increases the extinction risk for the species as a whole, a phenomenon dubbed the “extinction ratchet” (Burkey and Reed 2006, p. 11).

#### Pollution Control Regulations

Since the 1992 final listing rule, reductions in TSS and TP loading have improved water quality in localized reaches of the Snake River (Buhidar 2005) (*see* Factor A above). Various State-managed water quality programs are being implemented within the range of the Bliss Rapids snail. These programs are tiered off the Clean Water Act (CWA), which requires States to establish water-quality standards that provide for (1) the protection and propagation of fish, shellfish, and wildlife, and (2) recreation in and on the water. As required by the CWA, Idaho has established water-quality standards (*e.g.*, for water temperature and dissolved oxygen) for the protection of cold-water biota (*e.g.*, invertebrate species) in many reaches of the Snake River. The CWA also specifies that States must include an antidegradation policy in their water quality regulations that protects water-body uses and high-quality waters. Idaho’s antidegradation policy, updated in the State’s 1993 triennial review, is detailed in their Water Quality Standards (IDEQ 2009).

The IDEQ works closely with the USEPA to manage point and non-point sources of pollution to water bodies of the State through the National Pollutant Discharge Elimination System (NPDES) program under the CWA. IDEQ has not been granted authority by the USEPA to issue NPDES permits directly; all NPDES permits are issued by the USEPA Region 10 (USEPA 2009). These NPDES permits are written to meet all applicable water-quality standards established for a water body to protect human health and aquatic life. Waters that do not meet water-quality standards due to point and non-point sources of pollution are listed on EPA’s 303(d) list

of impaired water bodies. States must submit to EPA a 303(d) list (water-quality-limited waters) and a 305(b) report (status of the State’s waters) every 2 years. IDEQ, under authority of the State Nutrient Management Act, is coordinating efforts to identify and quantify contributing sources of pollutants (including nutrient and sediment loading) to the Snake River basin via the Total Maximum Daily Load (TMDL) approach. In water bodies that are currently not meeting water-quality standards, the TMDL approach applies pollution-control strategies through several of the following programs: State Agricultural Water Quality Program, Clean Water Act section 401 Certification, BLM Resource Management plans, the State Water Plan, and local ordinances. Several TMDLs have been approved by the USEPA in stream segments within the range of the Bliss Rapids snail in the Snake River or its tributaries (Buhidar 2006), although most apply only to TSS, TP, or temperature. Therefore, these stream segments do not yet have water quality attributes that are protective of the Bliss Rapids snail until the TMDL approach has sufficient time to bring the stream segment water quality in line with approved standards.

#### State Invertebrate Species Regulations

There has been no change in State regulations regarding invertebrate protections since the time of listing. Take of Bliss Rapids snails is not regulated under Idaho State law.

#### Federal Consultation Regulations

In Idaho, the USEPA retains authority for the issuance of permits through the NPDES, which is designed to manage point source discharges. There are presently more than 80 licensed aquaculture facilities on the Snake River permitted by the USEPA (USEPA 2002, pp. 4–19, 4–20). Updated draft permits for aquaculture and fish processing facilities throughout Idaho have recently been made available for public review (71 FR 35269). Draft permits have been issued for aquaculture facilities on Billingsley Creek, Riley Creek, Niagara Springs, and Thousands Springs, all within the known range of the Bliss Rapids snail. Facilities that produce less than 20,000 pounds (9,072 kilograms) of fish annually are not required to obtain an NPDES permit (USEPA 2006, p. 3–1). These smaller facilities lie outside of this regulatory nexus, and as such their discharges are not regulated or reported.

Since the species was listed in 1992, Federal agencies, including the Army Corps of Engineers and the FERC, have been required to comply with section 7

of the Act on any projects or managed activities that may affect the Bliss Rapids snail. If the species is delisted, terms and conditions now required of these agencies and their applicants to reduce the effects of their actions on the Bliss Rapids snail, such as placing conservation measures into agency permits, would not be required (*e.g.*, see USFWS 2007). Currently, IPC and the Service are cooperating in a Settlement Agreement (Agreement) approved by the FERC. This Agreement was designed to assess potential effects of the IPC's operations in the Wiley and Dike Reaches, and was approved as part of the biological opinion and license issuance for the Lower Salmon Falls and Bliss Projects. These studies and their analyses are scheduled to be completed in 2009.

The BLM manages more than 260 million acres of land in the 11 western States, including land adjacent to the Snake River in Idaho. The BLM manages activities on Federal lands such as outdoor recreation, livestock grazing, mining development, and energy production to conserve natural, historical, cultural, and other resources on the public lands (USBLM 2006). In Idaho, the BLM has been consulting with the Service pursuant to section 7 of the Act on ongoing BLM actions that may affect the Bliss Rapids snail. Through these consultation efforts, coordinated and cooperative conservation measures have been added to proposed actions (*e.g.*, new or renewed grazing permits on public lands) to minimize impacts to the species. Programmatic guidance and direction, documented through a conservation agreement between the BLM and Service, has increased the likelihood that conservation benefits may be realized for new, re-authorized, and ongoing actions; however, without the continued protections of the Act, there are no regulatory assurances that these conservation measures would continue.

*Summary of Factor D:* While there are no specific State regulations protecting the Bliss Rapids snail, the primary threats identified in the final listing rule were related to the loss or alteration of the species' aquatic habitat. Regulatory mechanisms such as Idaho's water quality standards and TMDLs will continue to apply to habitats occupied by the Bliss Rapids snail. Water quality in some stretches of the Snake River has improved, primarily for phosphorus and TSS. New research indicates the species is sensitive to some aquatic contaminants such as copper, ammonia, and pentachlorophenol. Ground water withdrawal and the subsequent decline

of the aquifer that feeds springs where the species occurs is a prominent threat. Depletion of cold water spring flows and declining ground water levels are a collective result of drought conditions, changes in irrigation practices, and ground water pumping. The effects of ground water pumping downstream in the aquifer can affect the upper reaches of the aquifer, and the effects of ground water pumping can continue for decades after pumping ceases. Thus, we anticipate ground water levels will likely continue to decline even if water conservation measures are implemented or are being developed. Some conservation benefits to the species are being realized through section 7 consultation with other Federal agencies, but without the Act's protection there are no regulatory assurances that these conservation benefits would continue. Based on this information, the inadequacy of existing regulatory mechanisms represents an ongoing threat to the Bliss Rapids snail that is likely to contribute to the species becoming endangered in the foreseeable future.

#### *Factor E. Other Natural or Manmade Factors Affecting the Species' Continued Existence*

The final listing rule stated that New Zealand mudsnails (*Potamopyrgus antipodarum*) were not abundant in cold water springflows with colonies of Bliss Rapids snails, but that they did compete with the Bliss Rapids snail in the mainstem Snake River (57 FR 59254; December 14, 1992). We have no direct evidence that New Zealand mudsnails have displaced colonies of Bliss Rapids snails, but New Zealand mudsnails have been documented in dark mats at densities of nearly 400 individuals per square inch in free-flowing habitats within the range of the Bliss Rapids snail (57 FR 59254). Richards *et al.* (2006, pp. 61, 64, 68) found that Bliss Rapids snails may be competitively excluded by New Zealand mudsnails in most habitats, and that Bliss Rapids snail densities would likely be higher in the absence of New Zealand mudsnails. Both species are mostly scraper-grazers on algae and have similar resource requirements (Richards *et al.* 2006, pp. 59, 66). Furthermore, New Zealand mudsnails have become established in every cold water spring-fed creek or tributary to the Hagerman Reach of the Snake River that has been surveyed (USFWS 2007). However, New Zealand mudsnails do not appear able to colonize headwater spring habitats, which may provide Bliss Rapids snails refugia from competition with New Zealand mudsnails (Frest and Johannes

1992, p. 50; Richards *et al.* 2006, pp. 67–68).

The physiological tolerances of the New Zealand mudsnail, including temperature and water velocity (Winterbourn 1969, pp. 457, 458; Lysne and Koetsier 2006b, p. 81); life history attributes such as high fecundity and growth rates (Richards 2004, pp. 25–34); and wide variety of habitat use such as springs, rivers, reservoirs, and ditches (Cada 2004, pp. 27, 28; USBR 2002, pp. 3, 11; Hall *et al.* 2003, pp. 407, 408; Clark *et al.* 2005, pp. 10, 32–35; Richards 2004, pp. 47–67), may provide the New Zealand mudsnail a competitive advantage over Bliss Rapids snails outside of cold headwater springs.

*Summary of Factor E:* Studies since the time of listing indicate that competition for resources occurs between the New Zealand mudsnail and the Bliss Rapids snail due to similar life history requirements. The New Zealand mudsnail has become established and widely distributed in the Snake River and its tributaries, however we do not know what this expansion has done to the distribution and abundance of Bliss Rapids snails. The current information is inconclusive as to whether the New Zealand mudsnail presently endangers the Bliss Rapids snail, largely because Bliss Rapids snails appear to have refugia from competition with New Zealand mudsnails in headwater springs. However, the available evidence suggests that the New Zealand mudsnail may endanger the Bliss Rapids snail in the foreseeable future given projected declines in aquifer levels, which will likely cause the extirpation of Bliss Rapids snails from these refugia.

#### **Conclusion**

In making a finding on whether or not a species warrants listing under the Act we must consider the legal definitions of “endangered” and “threatened.” A species is “endangered” for purposes of the Act if it is in danger of extinction throughout all or “a significant portion of its range” and is “threatened” if it is likely to become endangered within the *foreseeable future* throughout all or a significant portion of its range (emphasis added). The Act does not define the term “foreseeable future.” However, in a January 16, 2009 memorandum addressed to the Acting Director of the U.S. Fish and Wildlife Service, the Office of the Solicitor, Department of the Interior, concluded, “\* \* \* as used in the [Act], Congress intended the term ‘foreseeable future’ to describe the extent to which the Secretary can reasonably rely on

predictions about the future in making determinations about the future conservation status of the species.” In considering the foreseeable future as it relates to the status of the Bliss Rapids snail, we considered the (1) biological and demographic characteristics of the species (such as habitat requirements (water depth, substrate, and temperature), spring vs. riverine colonies, and dispersal and recolonization ability), (2) our ability to predict or extrapolate the effects of threats facing the species into the future, and the (3) the relative permanency or irreversibility of these threats.

The Bliss Rapids snail is a species endemic to Idaho and occurs primarily in cold water spring tributaries and the ground water influenced areas within the Snake River. Studies conducted since the species was listed in 1992 indicate that the species’ overall geographic range has not substantially changed since it was first described by Hershler *et al.* (1994), but the species has been detected in more riverine, cold water springs, and spring tributary locations within its historical range. The Bliss Rapids snail has specific and rather narrow habitat requirements in the form of suitable substrate and water temperature.

As discussed in the Summary of Factors section, we believe, based on the best available data, that it is reasonable to expect the primary threats (*i.e.*, reduced ground water levels, water quality and pollution concerns, and competition from nonnative species) to Bliss Rapids snails will continue to occur throughout the range of the species and to affect all colonies into the future. Ground water levels are expected to continue to decline, resulting in increased risks to spring and spring-influenced colonies beginning at the upstream end of the species’ range. Recent data show that spring colonies of Bliss Rapids snail contain rare alleles, and loss of such colonies are likely to reduce genetic diversity, which in turn reduces the species’ ability to respond to changes in environmental conditions. If current ground water trends continue—and we have a reasonable expectation that they will based on the best available data—we expect some colonies to become extirpated as sites become unsuitable for Bliss Rapids snails due to reduced flows and degraded water quality. Loss of spring colonies is also likely to result in the loss of potentially important refugia from competition with the New Zealand mudsnail. Without the cold water spring refugia that provide stable environmental conditions (relative to riverine habitats), there is significant

uncertainty regarding the ability of riverine populations to persist in the face of ongoing competition with New Zealand mudsnails. These uncertainties are exacerbated by existing hydropower operations that result in unknown levels of mortality to Bliss Rapids snails in the riverine environment, and the relatively low densities of Bliss Rapids snails in riverine habitats. Because of these significant uncertainties, if spring populations were lost due to groundwater depletion and/or changes to water quality in the springs, we would have little confidence that the Bliss Rapids snail could persist in the riverine environment alone.

Therefore, we have determined that the Bliss Rapids snail is not now in danger of extinction, but is likely to become endangered in the foreseeable future based on the expected persistence of threats from reduced ground water levels, water quality and pollution concerns, and competition from nonnative species.

#### Significant Portion of the Range Analysis

Having determined that the Bliss Rapids snail is likely to become endangered within the foreseeable future throughout all or a significant portion of its range, we must next consider whether there are any significant portions of its range that are currently in danger of extinction. The Act defines an endangered species as one “in danger of extinction throughout all or a significant portion of its range,” and a threatened species as one “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” The term “significant portion of its range” is not defined by statute. For purposes of this finding, a portion of a species’ range is significant if it is part of the current range of the species and is important to the conservation of the species because it contributes meaningfully to the representation, resiliency, or redundancy of the species. The contribution must be at a level such that its loss would result in a decrease in the ability to conserve the species.

The first step in determining whether a species is threatened or endangered in a significant portion of its range is to identify any portions of the range that warrant further consideration. The range of a species can theoretically be divided into portions in an infinite number of ways. However, there is no purpose to analyzing portions of the range that are not reasonably likely to be significant and threatened or endangered. To identify only those portions that warrant further consideration, we determine

whether there is substantial information indicating that (1) the portions may be significant and (2) the species may be in danger of extinction there or likely to become so within the foreseeable future. In practice, a key part of this analysis is whether the threats are geographically concentrated in some way. If the threats to the species are essentially uniform throughout its range, no portion is likely to warrant further consideration. If any concentration of threats applies only to portions of the range that are unimportant to the conservation of the species, such portions will not warrant further consideration.

If we identify any portions that warrant further consideration, we then determine whether in fact the species is threatened or endangered in any significant portion of its range. Depending on the biology of the species, its range, and the threats it faces, it may be more efficient in some cases for the Service to address the significance question first, and, in others, the status question first. Thus, if the Service determines that a portion of the range is not significant, the Service need not determine whether the species is threatened or endangered there; conversely, if the Service determines that the species is not threatened or endangered in a portion of its range, the Service need not determine if that portion is significant.

If the Service determines that both a portion of the range of a species is significant and the species is threatened or endangered there, the Service will specify that portion of the range where the species is in danger of extinction pursuant to section 4(c)(1) of the Act.

The terms “resiliency,” “redundancy,” and “representation” are intended to be indicators of the conservation value of portions of the species’ range. Resiliency allows the species to recover from periodic disturbance. A species will likely be more resilient if large populations exist in high-quality habitat that is distributed throughout the range of the species in such a way as to capture the environmental variability within the range of the species. It is likely that the larger size of a population will help contribute to the viability of the species. Thus, a portion of the range of a species may make a meaningful contribution to the resiliency of the species if the area is relatively large and contains particularly high-quality habitat or if its location or characteristics make it less susceptible to certain threats than other portions of the range. When evaluating whether or how a portion of the range contributes to resiliency of the species, it may help to evaluate the historical

value of the portion and how frequently the portion is used by the species. In addition, the portion may contribute to resiliency for other reasons—for instance, it may contain an important concentration of certain types of habitat that are necessary for the species to carry out its life history functions, such as breeding, feeding, migration, dispersal, or wintering.

Redundancy of populations may be needed to provide a margin of safety for the species to withstand catastrophic events. This does not mean that any portion that provides redundancy is a significant portion of the range of a species. The idea is to conserve enough areas of the range such that random perturbations in the system act on only a few populations. Therefore, each area must be examined based on whether that area provides an increment of redundancy that is important to the conservation of the species.

Adequate representation insures that the species' adaptive capabilities are conserved. Specifically, the portion should be evaluated to see how it contributes to the genetic diversity of the species. The loss of genetic diversity may substantially reduce the ability of the species to respond and adapt to future environmental changes. A peripheral population may contribute meaningfully to representation if there is evidence that it provides genetic diversity due to its location on the margin of the species' habitat requirements.

Based upon factors that contribute to our analysis of whether a species or subspecies is in danger of extinction throughout all or a significant portion of its range, and in consideration of the status of, and threats to, the Bliss Rapids snail discussed previously, we find that the primary threats to the continued existence of the Bliss Rapids snail occur throughout all of its range. Therefore, it is not necessary to conduct further analysis with respect to the significance of any portion of its range.

### Finding

On the basis of the best available scientific and commercial information, as discussed above, we find that the Bliss Rapids snail is likely to become endangered within the foreseeable future (*i.e.*, it is threatened, as defined by the Act). Therefore, removing the Bliss Rapids snail from the List is not warranted.

### References Cited

A complete list of all references cited herein is available upon request from the Idaho Fish and Wildlife Office (*see ADDRESSES*).

### Author

The primary authors of this document are the Idaho Fish and Wildlife Office (*see ADDRESSES*).

### Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: August 26, 2009.

### Daniel M. Ashe,

*Acting Director, Fish and Wildlife Service.*

[FR Doc. E9-21949 Filed 9-15-09; 8:45 am]

**BILLING CODE 4310-55-P**

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 660

[Docket No. 0907281183-91184-01]

RIN 0648-AX98

#### Fisheries off West Coast States; Pacific Coast Groundfish Fishery; Data Collection for the Trawl Rationalization Program

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

**ACTION:** Proposed rule; request for comments.

**SUMMARY:** NMFS proposes to collect data to support implementation of a future trawl rationalization program under the Pacific Coast Groundfish Fishery Management Plan (FMP). NMFS proposes to collect ownership information from all potential participants in the trawl rationalization program. In addition, NMFS is notifying potential participants that the agency intends to use the Pacific States Marine Fisheries Commission's Pacific Fisheries Information Network (PacFIN) database and NMFS' Northwest Fisheries Science Center's Pacific whiting observer data from NORPAC (a database of North Pacific fisheries and Pacific whiting information) to determine initial allocation of quota share (QS) for the trawl rationalization program, if it is approved and implemented.

**DATES:** Comments on this proposed rule must be received no later than 5 p.m., local time on October 16, 2009.

**ADDRESSES:** You may submit comments, identified by RIN 0648-AX98 by any one of the following methods:

Electronic Submissions: Submit all electronic public comments via the

Federal eRulemaking Portal <http://www.regulations.gov>.

Fax: 206-526-6736, Attn: Jamie Goen.

Mail: Barry Thom, Acting Administrator, Northwest Region, NMFS, 7600 Sand Point Way NE, Seattle, WA 98115-0070, Attn: Jamie Goen.

Instructions: All comments received are a part of the public record and will generally be posted to <http://www.regulations.gov> without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments (enter N/A in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only. Written comments regarding the burden-hour estimates or other aspects of the collection-of-information requirements contained in this proposed rule may be submitted to NMFS, Northwest Region and by e-mail to David\_Rostker@omb.eop.gov or fax to (202) 395-7285.

#### FOR FURTHER INFORMATION CONTACT:

Jamie Goen, phone: 206-526-4656, fax: 206-526-6736, and e-mail [jamie.goen@noaa.gov](mailto:jamie.goen@noaa.gov).

#### SUPPLEMENTARY INFORMATION:

##### Electronic Access

This proposed rule is accessible via the Internet at the Office of the **Federal Register's** Web site at <http://www.gpoaccess.gov/fr/index.html>. Background information and documents are available at the Pacific Fishery Management Council's website at <http://www.pcouncil.org/>.

##### Background

Since 2003, the Pacific Fishery Management Council (Council) has been developing a trawl rationalization program, which would affect the limited entry trawl fishery of the Pacific Coast groundfish fishery. The trawl rationalization program is intended to increase net economic benefits, create individual economic stability, provide full utilization of the trawl sector allocation, consider environmental impacts, and achieve individual accountability of catch and bycatch.

The Council has developed the trawl rationalization program through two amendments to the Groundfish FMP: (1) Amendment 20, the trawl