

the guidance at DFARS 247.270-5 and 247.270-6 for consistency with section 15.605 of the FAR.

B. Regulatory Flexibility Act

The interim rule is not expected to have a significant economic impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act, 5 U.S.C. 601, *et seq.*, because the rule is consistent with the existing policy at FAR 15.605. An initial regulatory flexibility analysis has therefore not been performed.

Comments are invited from small businesses and other interested parties. Comments from small entities concerning the affected subpart will be considered in accordance with Section 610 of the Act. Such comments must be submitted separately and cite DFARS Case 94-D005 in correspondence.

C. Paperwork Reduction Act

The Paperwork Reduction Act does not apply because the rule does not impose any information collection requirements which require the approval of the Office of Management and Budget under 44 U.S.C. 3501, *et seq.*

List of Subjects in 48 CFR Part 247

Government procurement.

Claudia L. Naugle,
Deputy Director, Defense Acquisition
Regulations Council.

Therefore, 48 CFR Part 247 is amended as follows:

PART 247—TRANSPORTATION

1. The authority citation for 48 CFR Part 247 continues to read as follows:

Authority: 41 U.S.C. 421 and 48 CFR Chapter 1.

2. Section 247.270-5 is revised to read as follows:

§ 247.270-5 Evaluation of bids and proposals.

At a minimum, require that offers include—

- (a) Tonnage or commodity rates which apply to the bulk of the cargo worked under normal conditions;
- (b) Labor-hour rates which apply to services not covered by commodity rates, or to work performed under hardship conditions; and
- (c) Cost of equipment rental.

3. Section 247.270-6 is revised to read as follows:

§ 247.270-6 Award of contract.

Make the award to the contractor submitting the offer most advantageous to the Government, considering cost or price and other factors specified

elsewhere in the solicitation. Evaluation will include, but is not limited to—

- (a) Total estimated cost of tonnage to be moved at commodity rates;
- (b) Estimated cost at labor-hour rates; and
- (c) Cost of equipment rental.

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

220-94

RIN 1018-AC11

Endangered and Threatened Wildlife and Plants; Final Rule to Reclassify the Plant *Isotria medeoloides* (Small Whorled Pogonia) From Endangered to Threatened

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) determines that *Isotria medeoloides* (small whorled pogonia) warrants reclassification from endangered to threatened. The determination is based on the fulfillment of reclassification criteria as stated in the Small Whorled Pogonia (*Isotria medeoloides*) Recovery Plan: First Revision (U.S. Fish and Wildlife Service 1992) and substantial improvement in the status of this orchid species. As outlined in the revised Recovery Plan, reclassification of *Isotria medeoloides* from endangered to threatened should proceed when a minimum of 25 percent of the known viable sites (as of 1992) are protected. Currently, 61 percent of the viable populations are permanently protected. This rule implements the Federal protection and recovery provisions for threatened species as provided by the Act.

EFFECTIVE DATE: November 7, 1994.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the New England Field Office, U.S. Fish and Wildlife Service, 22 Bridge Street—Unit 1, Concord, New Hampshire 03301-4986.

FOR FURTHER INFORMATION CONTACT: Ms. Susanna von Oettingen at the above address (telephone: 603/225-1411, FAX 603/225-1467).

SUPPLEMENTARY INFORMATION:

Background

Isotria medeoloides (small whorled pogonia), a member of the orchid family (Orchidaceae), was first described by Frederick Pursh in 1814 as *Arethusa medeoloides*. In 1838, this orchid was placed in its own genus and recognized as *Isotria medeoloides*; however, it also became known as *Pogonia affinis* and *Isotria affinis*. M.L. Fernald clarified the nomenclature in 1947, making the latter names synonyms of *Isotria medeoloides*.

Isotria medeoloides is an herbaceous perennial with slender, hairy, fibrous roots that radiate from a crown or rootstock. The five or six milky-green or grayish-green, elliptic and somewhat pointed leaves (four leaves in some vegetative plants) are displayed in a whorl at the apex of a smooth, green stem. *Isotria medeoloides* flowers from mid-May in the south to mid-June in the northern part of its range. A single yellowish-green flower, or occasionally flower pair, stands in the center of the whorl of leaves.

An individual plant is usually single-stemmed, although two or more stems may occur; however, closely grouped double stems may in fact be two single plants (Bill Brumback, New England Wildflower Society, *in litt.* 1993). Because of the difficulty in differentiating double stemmed plants from closely neighboring plants, population estimates are often based on the number of stems, as opposed to the number of plants.

Isotria medeoloides can be confused with *Isotria verticillata* (Willd.) Raf. (large whorled pogonia), the only other species in the genus *Isotria*. Characteristics that distinguish *I. medeoloides* from *I. verticillata* include the stem and flower color, the relative lengths of the sepals and petals, and the length of the stem of the fruit capsule in relation to the length of the capsule itself (Rawinski 1989a). Colonies of *Isotria verticillata* are often found near colonies of *Isotria medeoloides* in the extensive region in which they occur together (A. Belden, Virginia Division of Natural Heritage, *in litt.* 1991). They have also been reported to grow mixed together (Dixon and Cook 1988).

Isotria medeoloides occurs both in fairly young forests and in maturing stands of mixed-deciduous or mixed-deciduous/coniferous forests. The majority of small whorled pogonia sites share several common characteristics. These may include sparse to moderate ground cover in the microhabitat (except when among ferns), a relatively open understory canopy, and proximity to old logging roads, streams, or other

features that create long-persisting breaks in the forest canopy (Mehrhoff 1989a). The soil in which the shallow-rooted small whorled pogonia grows is usually covered with leaf litter and decaying material (Mehrhoff 1980, Sperduto 1993). The spectrum of habitats includes dry, rocky, wooded slopes to moist slopes or slope bases crisscrossed by vernal streams.

Isotria medeoloides is widely distributed with a primary range extending from southern Maine and New Hampshire through the Atlantic seaboard States to northern Georgia and southeastern Tennessee. Outlying colonies have been found in the western half of Pennsylvania, Ohio, Michigan, Illinois, and Ontario, Canada.

There are three main population centers of *Isotria medeoloides*. The northernmost concentration, comprising 66 sites in 1993, is centered in the foothills of the Appalachian Mountains in New England and northern coastal Massachusetts, with one outlying site in Rhode Island. A second grouping of 18 sites is located at the southern extreme of the Appalachian chain in the Blue Ridge Mountains where North Carolina, South Carolina, Georgia, and Tennessee join. The third center, with 13 sites, is concentrated in the coastal plain and piedmont provinces of Virginia, with outliers in Delaware and New Jersey. Seven sites scattered in the outlying States and Ontario are considered disjunct populations.

Previous Federal Action

Isotria medeoloides was listed as endangered on September 10, 1982 (47 FR 39827-39831). At that time, records for the species were known from 48 counties in 16 States and Canada, though there were only 17 extant sites, in 10 States and Ontario, Canada. These sites had less than 500 stems. Subsequent searches led to the discovery of many new sites. In 1991, 86 sites in 15 States and Canada (U.S. Fish and Wildlife Service 1992) were known. By 1993, 17 additional sites in New Hampshire and 1 site in Maine were discovered, bringing the total to 104 extant sites (Table 1). A number of States currently have only historic sites; these include Vermont, New York, Maryland, Missouri, and the District of Columbia.

TABLE 1.—ISOTRIA MEDEOLOIDES SITE DISTRIBUTION

State	# Sites 1985	# Sites (# Viable) 1993	# Sites protected 1993 (# Viable)
Maine	2	17(7)	4(4)
New Hampshire	16	42(15)	11(6)
Massachusetts	1	5(2)	2(2)
Rhode Island	1	1(0)	0(0)
Connecticut	1	1(0)	1(0)
Pennsylvania	1	3(0)	3(0)
New Jersey	2	3(1)	1(0)
Delaware	0	1(0)	0(0)
Virginia	3	9(6)	7(4)
North Carolina	2	5(2)	2(2)
South Carolina	1	4(2)	4(2)
Georgia	1	8(4)	7(4)
Tennessee	0	1(0)	0(0)
Ohio	0	1(0)	1(0)
Michigan	1	1(0)	1(0)
Illinois	1	1(0)	1(0)
Ontario, Canada	1	1(0)	1(0)
Total	34	104(39)	46(24)

¹ Protection as defined in the criteria for reclassification in the Small Whorled Pogonia Recovery Plan: First Revision (U.S. Fish and Wildlife Service 1992), also discussed below.

The first Small Whorled Pogonia Recovery Plan was completed in 1985 (U.S. Fish and Wildlife Service 1985). The original objective, outlined in the 1985 recovery plan and based on the best available information at that time, was to locate and protect 30 populations (sites) of at least 20 individuals each, with at least 15 of the sites to be located in New England. Implementation of several recovery tasks generated additional life history and population information, the identification of new sites and protection of those sites deemed important to the survival and recovery of this species.

Upon review of new life history and site information, this recovery objective was no longer considered appropriate. Viability, based on the reproductive status and persistence of a population, as opposed to merely a stem count, is now considered to be an important factor in determining the recoverability of this species.

The Small Whorled Pogonia Recovery Plan: First Revision, was completed and approved in 1992. New recovery goals for the reclassification and delisting of *Isotria medeoloides* and tasks for the recovery of this species were developed using the most recent information regarding population trends and dynamics, life history, and previous recovery efforts. The current recovery

strategy is based on a multi-faceted approach of habitat protection and management (on a site specific basis), threat reduction, and environmental education.

The Service identified recovery criteria required for the reclassification of *Isotria medeoloides* from endangered to threatened in the 1992 recovery plan. Reclassification would be pursued when a minimum of 25 percent of the known, viable sites (as of 1992) is permanently protected. A site is considered viable if it has a geometric mean (over 3 years) of 20 emergent stems, of which at least 25 percent are flowering stems. Though not discussed in the recovery plan, an alternative viability definition has since been developed for sites located in the southern part of the range. This definition was based upon information provided by botanists familiar with these small, yet persistent populations (B. Sanders, U.S. Forest Service, pers. comm. 1993). Viability for smaller populations may be considered for those sites where less than 20 stems have persistently emerged for over 15 years. A determination of viability based on a stem count of less than 20 stems would require a long-term commitment to monitoring a site.

In addition to site viability and protection, reclassification necessitates that the protected, viable sites be distributed proportionally throughout the species' current range. Site protection should include a sufficient buffer zone around the populations to allow the potential for natural colonization of adjacent, unoccupied habitat.

As defined in the 1992 recovery plan, protection can be accomplished through—(1) Ownership by a government agency or a private organization that considers maintenance of the *I. medeoloides* population to be a management objective for the site, or (2) a deeded easement or covenant that effectively commits present and future landowners to protecting the population and allowing the implementation of management activities when appropriate. This high level of landowner commitment to site protection may be critical if it is determined that the species needs management to counteract the loss of nearby unoccupied habitat. The need for habitat management would be reviewed on a site-by-site basis, and be dependent upon the completion of Task 2.1 of the 1992 recovery plan, which is to determine appropriate management strategies.

Adequate protection for the purposes of reclassification has been achieved for approximately 50 percent of the viable

New England center populations; 57 percent of viable populations in the Virginia center; and 100 percent of the viable populations in the Blue Ridge center. No populations in the outlying States are considered to be viable, though 4 of the 6 extant populations are protected. As a result of meeting the reclassification criteria outlined in the 1992 recovery plan, the Service published a proposed rule to reclassify *Isotria medeoloides* from endangered to threatened in the **Federal Register** on October 19, 1993 (FR 53904).

The ultimate goal of the 1992 recovery plan is to ensure long-term viability of *Isotria medeoloides*, facilitating the removal of the species from the Federal list. This objective would be reached when a minimum of 61 sites (75 percent of the number of viable sites known in 1992) are permanently protected.

As in the reclassification criteria, the distribution of these sites must be proportionate among the three geographic centers and the outliers. Viable sites for delisting the species are those sites with self-sustaining populations having an average of 20 emergent stems (over a 10-year period), of which an average of 25 percent are flowering stems. The extended period of monitoring time is required to ensure long-term viability, and should factor in the potential for naturally induced dormancy of individual plants. An alternative definition for viability of smaller populations in the southern portion of the small whorled pogonia's range may be considered and substantiated through the recovery process for sites where less than 20 stems, of which an average of 25 percent are flowering, have persistently emerged for over 15 years.

Ideally, unoccupied habitat adjacent to existing colonies must also be protected to allow for natural colonization and maintenance of a self-sustaining population. In some cases, only the immediate area encompassing *Isotria medeoloides* populations has been protected, while surrounding habitat has been destroyed. For these sites, management strategies to maintain self-sustaining populations may need to replace the historical availability of additional habitat.

The management strategies would be dependent upon completion of Tasks 2.1 and 5.2 of the 1992 recovery plan.

Summary of Comments and Recommendations

In the October 19, 1993 proposed rule and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the

development of a final rule. Appropriate State agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Newspaper notices that invited general public comment were published in—*The Kennebec Journal* (Maine), *The Portsmouth Daily Times* (Ohio), and *The New Jersey Herald* (New Jersey) on November 3, 1993; *The Richmond Times-Dispatch* (Virginia), *The State Journal-Register* (Illinois) and *The State* (South Carolina) on November 4, 1993; *The Portland Newspaper* (Maine) and *The Atlanta Journal* (Georgia) on November 5, 1993; *The Herald-Palladium* (Michigan) and *The Chattanooga News-Free Press* (Tennessee) on November 8, 1993; *The New Journal* (Delaware) and *The Wilmington News-Journal* (Delaware) on November 9, 1993; and *The Asheville Citizen-Times* (North Carolina) on November 10, 1993. Eleven letters were received, nine supported the ruling, one was in opposition and one did not support or oppose the reclassification of *I. medeoloides*, but did provide comments.

Comments questioning the soundness of reclassification are discussed below.

An individual suggested that reclassification was premature because the Service's definition of viability is based on the population's reproductive status as opposed to a stem count and reproductive status. However, the Service's definition of a viable population for this species includes both stem counts (geometric mean of 20 plants over a 3-year period) and reproductive status of the population (25 percent of the population must have flowering individuals). Therefore, the Service believes the definition for viable populations requires both constancy of stem emergence and reproduction, and provides for the best possible determination given current life history information.

Another comment questioned the Service's standard of an average of 20 stems over a 10-year period for a viable population. The individual suggested that the majority of extant populations be monitored for 10 years prior to determining the viability for all populations with 20 stems or more. The Service assumes that the commenter is referring to the delisting criteria. The stated recovery criteria are based on the best scientific and professional judgment available and were given public review during the revision of the recovery plan in 1992. No comments were received at that time opposing the criteria. Furthermore, the majority of populations averaging 20 or more stems

have been monitored periodically for close to 10 years or since their discovery. Waiting to reclassify this species until such time as 10 years have passed for all sites with 20 stems or more would delay reclassification indefinitely, given that new populations continue to be discovered. The Service believes that the reclassification criteria are sufficiently protective and adequately define viability.

The commenter also interpreted the Service's recovery strategy to include habitat management and questioned its inclusion given the lack of information on appropriate and successful management. While it is true that habitat management strategies currently have not been developed, the Service believes that the potential for habitat management may exist. Habitat management will only be an aspect of the recovery strategy should it be deemed a useful tool. The proposed rule did not mean to imply that this was a given.

The Service was requested to consider reclassifying the species in a section of its range. The Act does not provide for the separate listing or reclassification of plant populations.

Two commenters questioned the protection afforded threatened plants under the Act. The Service does not believe that protection will be significantly lessened by reclassification to threatened. The protection given to this threatened species under sections 7 and 9 of the Act is essentially the same as when listed as endangered. The only exception to future protection is the exemption given to seeds from cultivated specimens of threatened plants. Cultivated *Isotria medeoloides* seeds will be exempt from the trade prohibitions of section 9(a)(2) of the Act, provided that a statement of "cultivated origin" appears on their containers. However, retention of threatened status reflects the Service's awareness that threats continue to exist for *Isotria medeoloides*, though it is no longer in immediate danger of extinction.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Isotria medeoloides* should be reclassified as a threatened species. Procedures found in section 4(a)(1) of the Act and regulations implementing the listing provisions of the Act (50 CFR part 424) for reclassifying species on the Federal lists were followed. A species may be listed or reclassified as threatened or endangered due to one or more of the five factors described in

section 4(a)(1). These factors and their application to *Isotria medeoloides* (Pursh) Raf. (small whorled pogonia) are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range. Following the listing of *Isotria medeoloides* as endangered, recovery activities carried out by Federal and State agencies, private organizations, and the academic community resulted in the discovery of many new sites. The number of extant sites has more than tripled in the 11 years since the orchid was listed, with approximately 48 percent of the *I. medeoloides* sites afforded some level of protection.

Isotria medeoloides and its habitat continue to be vulnerable to development pressures throughout its range. With the exception of a few States, the upland habitat in which it is found receives limited protection through State or Federal regulatory means when occurring on private land. Residential and commercial development, both directly and indirectly, are primarily responsible for the destruction of *Isotria medeoloides* habitat. Of the 104 extant *I. medeoloides* sites, 2 States, Maine and New Hampshire, account for 57 percent (59 sites) of all of the known sites. Only 15 of the 59 sites in these 2 States are protected.

Historical records exist for localities throughout the small whorled pogonia's range. The habitat of many of these known historical sites has been destroyed; for example, sites in Vermont, Maryland, New Jersey, and the District of Columbia were lost to habitat destruction, primarily from development. Recent intensive efforts to relocate historical sites in eastern Pennsylvania, New York, Vermont, and Missouri have been unsuccessful (U.S. Fish and Wildlife Service 1992).

Since the listing of *Isotria medeoloides*, New Hampshire has seen the destruction of a large, viable population by the construction of summer housing and the potential destruction of a second, recently discovered (1992) population. This second population of over 30 stems will most likely be severely impacted, if not destroyed, within the next few years as the habitat is developed for a subdivision. In Virginia, one of the larger sites will most likely be destroyed within the next few years as its habitat, and adjoining suitable habitat, is developed for housing. Without voluntary landowner protection, many more *I. medeoloides* populations could be destroyed as development pressures increase.

Development in areas surrounding *Isotria medeoloides* habitat could indirectly be responsible for habitat destruction as roads, power lines and sewer mains are designed to connect settled areas. In addition, housing developments, though not necessarily directly destroying habitat, may cause the alteration of habitat parameters by creating large, permanent openings in the canopy that in turn encourage denser understory growth. Disturbance to populations through increased visitation (however unintentional) from people and pets might also cause direct damage to plants, and eventually a decline in affected populations.

This plant primarily appears to reproduce sexually, though little is known at this time regarding seed dispersal and seed banking. The formation of barriers to seed dispersal, either through development of adjacent habitat or from logging or land clearing, may prevent the recolonization of suitable habitat by naturally declining populations. Careful and selective logging may not be harmful to a population; however, heavy timbering and clear-cutting may have long-term impacts on *Isotria medeoloides* populations and their habitat. The creation of logging roads and use of heavy machinery that severely alters soil composition could significantly modify the habitat and cause the direct loss of plants.

B. Overutilization for commercial, recreational, scientific, or educational purposes. The 1982 final listing identified the collecting for scientific purposes as contributing to the loss of *Isotria medeoloides* in the past. Since the listing and the release of both recovery plans, collecting for these purposes is no longer considered to be a threat to the species. However, the potential collecting by wildflower garden enthusiasts for transplanting is still great due to the rarity of this orchid. One landowner in North Carolina was literally harassed by orchid and wildflower enthusiasts when a local garden club publicized the location of his *I. medeoloides* population (Nora Murdock, U.S. Fish and Wildlife Service, *in litt.* 1993). Furthermore, vandalism of populations (either out of capriciousness or for private collections) whose locations were publicized continue to be documented (Rawinski 1986b).

Significant commercial trade in the species is not known or expected in the future, nor is any significant import or export of this species expected. Therefore, taking of *I. medeoloides* for these purposes is not considered to be a factor in its decline.

C. Disease or predation. Herbivory by white-tailed deer and invertebrates, including slugs and camel crickets is a known threat of currently unknown extent. Increasing development pressure near *Isotria medeoloides* populations results in the concentration of deer onto smaller parcels of woodland and may decrease local hunting pressure on suburban deer populations. As the local deer herd increases and is forced onto less land, there is a greater likelihood of herbivory on *Isotria medeoloides*. In Virginia, the magnitude of threat from deer browse of *I. medeoloides* populations may be second only to development of its habitat (D. Ware, College of William and Mary, pers. comm. 1994). The precipitous decline of a large Virginia *I. medeoloides* population located near a housing development, appears to be primarily due to grazing (Ware 1991). However, symbolic fencing placed around four subpopulations appears to have prevented deer from grazing on the orchids. In 1993, no plants were observed to have been browsed, prior to the fencing a majority of the plants were impacted by deer browse (D. Ware, pers. comm. 1994).

Additional threats include wild pigs trampling or uprooting *I. medeoloides* plants and herbivory by rabbits in the southern portion of the small whorled pogonia's range (B. Sanders, pers. comm. 1993) and occasionally trampling or herbivory by moose in the northern portion of its range.

D. The inadequacy of existing regulatory mechanisms. *Isotria medeoloides* is afforded protection by the Endangered Species Act. The Act prohibits the take of endangered and threatened plants from lands under Federal jurisdiction or in knowing violation of any State law or regulation, and prohibits the violation of any regulation pertaining to any endangered or threatened species of plant. Under the Act, Federal agencies are required to ensure that their actions do not jeopardize the continued existence of listed species and must consult (under section 7) when an activity may affect a listed species or critical habitat.

Section 7(a)(1) requires Federal agencies to carry out programs for the conservation of threatened and endangered species. In this respect, several Federal agencies have intensified their search and protection efforts on behalf of *Isotria medeoloides*. In Virginia, the National Park Service provided funding for research and monitoring, and is seeking ways to prevent disturbance to sites under its jurisdiction. The Department of Defense has also facilitated searches and

monitoring of populations at two bases in Virginia. In Georgia, the U.S. Forest Service has been particularly successful in finding new sites. The Forest Service in this State conducts plant surveys in areas potentially impacted by management activities and regularly monitors known sites (B. Sanders, *in litt.* 1993). In 1993, two sites were located on the White Mountain National Forest in New Hampshire. Base maps for potential *I. medeoloides* habitat were developed for the White Mountain National Forest; the Forest Service now consults the Service on all activities proposed for those areas.

Consultations under section 7 of the Act can provide protection for this species; a road and sewer main near an *Isotria medeoloides* population in Virginia were re-routed to avoid direct destruction of the plants and their habitat. Coordination with State and local agencies, as well as private developers, has resulted in the avoidance of adverse impacts to *Isotria medeoloides* and its habitat. In Connecticut, a trail was re-routed to avoid a population in a State forest.

Additional protection through Federal and State legislation has been provided since *Isotria medeoloides* was listed. All States with current and historical populations have cooperative plant agreements with the Fish and Wildlife Service as specified under section 6(c)(2) of the Act. The 1988 amendments to the Act increased protection for plant species not on Federal lands, where State endangered species laws provide specific protection to endangered plant species.

Twenty-seven sites have been discovered on lands under State and Federal jurisdiction and are afforded some level of protection. For those populations on private lands, conservation easements or agreements with the landowners have been actively pursued. Eight sites are on lands owned by private conservation organizations, while two other sites have deeded conservation easements ensuring the protection of the plants and their habitat. Some State agencies pursue voluntary registration of *I. medeoloides* sites. While such registration does not guarantee habitat protection, it does seek to recognize the importance of the site in the hopes of voluntary protection on the part of the landowners.

The number of States protecting *I. medeoloides* has increased from 6 in 1985 to include all States in its present range. With the exceptions of New Jersey, Rhode Island and South Carolina, all States have enacted laws that prohibit the take of State listed plants, including *I. medeoloides*,

without the landowner's permission. However, plants growing on privately owned lands are subject to take by the landowner. Massachusetts, Michigan and Vermont provide additional protection to listed plants in that permits are required for take on both private and public lands.

In Georgia, *Isotria medeoloides* is protected under a regional Forest Service Manual regulation, 2670.44 R-8 supp 37. Since this species is federally listed, it qualifies as a Forest Service Potential Endangered, Threatened or Sensitive (PET) species, and as such should receive a level of protection that will lead to identification of possible recovery opportunities and ensure that no adverse effects occur to plants on lands under the Forest Service's jurisdiction.

The Service does not believe that reclassification to threatened status will result in substantive changes in the protection afforded this species under these regulatory mechanisms.

E. Other natural or manmade factors affecting its continued existence. Recovery efforts have been directed toward research and environmental education. A predictive habitat model was developed using Geographical Information System (GIS); 10 additional sites were discovered in 1993 using maps delineating potential habitat (Sperduto 1993). Educational materials in the form of posters, brochures and fact sheets were designed and made available to the general public. Ongoing research includes the investigation of mycorrhizal relationships (Larry Zetler, Clemson University, *in litt.* 1993), and habitat manipulation to encourage or stabilize *I. medeoloides* populations (Alison Dibble, University of Maine, *in litt.* 1993).

Mycorrhizal associations are important factors in the germination and seedling establishment of most orchids. Though a mycorrhizal fungus was isolated from the closely related *Isotria verticillata*, host-specific mycorrhizae have not been identified for *I. medeoloides*. Alterations to *I. medeoloides* habitat that adversely affect the mycorrhizae would also result in adverse impacts to the orchid. However, until the specific mycorrhizal associate is determined, it will be difficult to understand the effects of subtle habitat alteration on the orchid or the fungal community.

Recent monitoring results indicate a decline in viability of many of the populations that have been followed over a number of years. It appears that no obvious changes have occurred to the habitat of most of these populations and no causes for this decline have been

determined. Though life history and demographic studies have provided some clues to the habitat requirements of this species, there is still a large gap in the understanding of what is required to maintain viable populations.

Dormancy of *Isotria medeoloides* plants continues to be a matter of speculation and debate. The 1985 recovery plan provided preliminary information that a small whorled pogonia could go dormant for 10 to 20 years. To date, this length of dormancy has not been verified. The length of dormancy might also vary throughout the range of the orchid. Mehrhoff (1989b) conducted a 6-year study and observed that no plants emerged after 3 or more consecutive years; other studies indicate that plants may be dormant up to 4 years and dormancy may vary by year and by site (Brumback and Fyler 1988; Vitt 1991). Without better clarification of specific dormancy periods, it is difficult to distinguish between a dead or dormant plant.

As adjacent, suitable habitat is developed, precluding the natural colonization of suitable habitat, management may be the only alternative for maintaining viable populations. It may be vital to develop habitat management strategies for existing sites in order to maintain self-sustaining populations. Without the knowledge of key habitat characteristics, management and the precise identification of potential habitat will be impossible. Soil type (including texture and moisture), nutrient availability, overstory cover, understory density, slope position and aspect are some of the habitat characteristics that might be important factors in population viability. Other unknown parameters include the variation of climatological factors and relative humidity throughout the species' range, and how these differences impact population stability, plant reproduction, recolonization and viability.

The dearth in knowledge of habitat characteristics and life history information may result in the further decline of many populations through benign neglect. The 1992 recovery plan identified a number of tasks required to advance the understanding of *Isotria medeoloides* in furtherance of its recovery.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to reclassify this species from endangered status to threatened status. Threatened status is

more appropriate because the number of known populations has tripled since the species was listed and 61 percent of the current viable sites are afforded permanent protection. However, it may still be likely to become an endangered species within the foreseeable future without additional site protection and further investigation of its life history and habitat parameters.

Effects of the Rule

This rule changes the status of *Isotria medeoloides* from endangered to threatened and formally recognizes that this species is no longer in imminent danger of extinction throughout a significant portion of its range. Reclassification to threatened does not significantly alter the protection for this species under the Act (see Summary of Comments and Recommendations).

Conservation measures prescribed for *Isotria medeoloides* would proceed. The recovery program approved in 1992 prescribes continued efforts to—(1) protect known *Isotria medeoloides* populations and essential habitat; (2) develop habitat management strategies; (3) manage protected sites; (4) monitor sites and determine viability; (5) survey for new sites; (6) investigate population dynamics and species biology; and (7) provide public information and education.

Many State and Federal agencies continue to monitor extant sites and search for new ones. The application of a predictive model should further assist in the location of new sites in New England. Investigations into the genetic structure of this species, the mycorrhizal relationships, and the development of habitat management measures have been targeted in the 1992 recovery plan as important tasks. These activities are either ongoing or proposed for the near future. Recovery activities are not expected to diminish as a result of this reclassification since the primary objective of the recovery strategy is delisting of the species.

This action will not be an irreversible commitment on the part of the Service. Reclassifying *Isotria medeoloides* to endangered would be possible should changes occur in management, habitat, or other factors that alter the present threats to the species' survival and recovery.

National Environmental Policy Act

The Fish and Wildlife Service has 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 Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

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Author

The primary author of this proposed rule is Susanna von Oettingen (see ADDRESSES section).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

Accordingly, part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, is amended 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. Section 17.12(h) is amended by revising the "Status" column in the existing entry for "*Isotria medeoloides* (Small whorled pogonia)" under "Orchidaceae" on the List of Endangered and Threatened Plants to read "T" instead of "E" and the "When Listed" column to read "122, 556".

Dated: September 9, 1994.

Mollie H. Beattie,

Director, Fish and Wildlife Service.

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 663

[Docket No. 940254–4104; I.D. 092894A]

Pacific Coast Groundfish Fishery

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

ACTION: Notice of reserve release; request for comments.

SUMMARY: NMFS announces the release of that portion of the 1994 Pacific