

**U.S. Fish and Wildlife Service**

**General Schedule Qualification Standards by Occupational Series**

**0400-0499 Biological Sciences**

<https://www.opm.gov/policy-data-oversight/classification-qualifications/general-schedule-qualification-standards/#url=List-by-Occupational-Series>

**General Natural Resources Management and Biological Sciences Series, 0401**

Individual Occupational Requirements

Basic Requirements

1. **Degree:** biological sciences, agriculture, natural resource management, chemistry, or related disciplines appropriate to the position.

*or*

2. **Combination of education and experience:** Courses equivalent to a major, as shown in A above, plus appropriate experience or additional education.

**Ecology Series, 0408**

Individual Occupational Requirements

Basic Requirements

**Degree:** biology, or a related field of science underlying ecological research that included at least 30 semester hours in basic and applied biological sciences. These hours must have included at least 9 semester hours in ecology, and 12 semester hours in physical and mathematical sciences.

**Zoology Series, 0410**

Individual Occupational Requirements

Basic Requirements

1. **Degree:** zoology; or a related discipline or field of science that included at least 20 semester hours in zoology and related animal sciences.

*or*

2. **Combination of education and experience:** courses equivalent to a major in zoology, or in a related discipline that included course work as shown in A above, plus appropriate experience or additional education.

**Botany Series, 0430**

Individual Occupational Requirements

Basic Requirements

1. **Degree:** botany; or basic plant science that included at least 24 semester hours in botany.

*or*

2. **Combination of education and experience:** courses equivalent to a major in botany or basic plant science that included at least 24 semester hours in botany, as shown in A above, plus appropriate experience or additional education.

For positions dealing with the study of fungi, or with basic mycological relationships, the course work in botany must have included at least 6 semester hours in mycology.

## **Fish Biology Series, 0482**

### Individual Occupational Requirements

#### Basic Requirements

##### *Nonresearch Positions:*

1. **Degree:** major in biological science that included:
  - At least 6 semester hours in aquatic subjects such as limnology, ichthyology, fishery biology, aquatic botany, aquatic fauna, oceanography, fish culture, or related courses in the field of fishery biology; and
  - At least 12 semester hours in the animal sciences in such subjects as general zoology, vertebrate zoology, comparative anatomy, physiology, entomology, parasitology, ecology, cellular biology, genetics, or research in these fields. (Excess course work in aquatic subjects may be used to meet this requirement when appropriate.)

or

2. **Combination of education and experience:** courses equivalent to a major in biological science (i.e., at least 30 semester hours), of which a minimum of 6 semester hours were in aquatic subjects and 12 semester hours were in the animal sciences, as shown in A above, plus appropriate experience or additional education.

*Research Positions:* Applicants must show that they have a degree with major study in biology, zoology, or biological oceanography that included at least 30 semester hours in biological and aquatic science and 15 semester hours in the physical and mathematical sciences. This course work must have included:

- At least 15 semester hours of preparatory training in zoology beyond introductory biology or zoology in such courses as invertebrate zoology, comparative anatomy, histology, physiology, embryology, advanced vertebrate zoology, genetics, entomology, and parasitology; and
- At least 6 semester hours of training applicable to fishery biology in such subjects as fishery biology, ichthyology, limnology, oceanography, algology, planktonology, marine or fresh water ecology, invertebrate ecology, principles of fishery population dynamics, or related course work in the field of fishery biology; and
- At least 15 semester hours of training in any combination of two or more of the following: chemistry, physics, mathematics, or statistics.

## **Wildlife Refuge Management Series, 0485**

### Individual Occupational Requirements

#### Basic Requirements

1. **Degree:** zoology, wildlife management, or an appropriate field of biology that included at least 9 semester hours in zoology; 6 semester hours in such wildlife courses as mammalogy, ornithology, animal ecology, or wildlife management; and 3 semester hours in botany, and 3 semester hours in conservation biology.

or

2. **Combination of education and experience:** courses equivalent to a major in one of the fields described in A above that included at least 9 semester hours in zoology; 6 semester hours in such wildlife courses as mammalogy, ornithology, animal ecology, or wildlife management; and 3 semester hours in botany, and 3 semester hours in conservation biology, plus appropriate experience or additional education.

## **Wildlife Biology Series, 0486**

### **Individual Occupational Requirements**

#### **Basic Requirements**

##### *Nonresearch positions:*

1. **Degree:** biological science that included:
  - At least 9 semester hours in such wildlife subjects as mammalogy, ornithology, animal ecology, wildlife management, or research courses in the field of wildlife biology; and
  - At least 12 semester hours in zoology in such subjects as general zoology, invertebrate zoology, vertebrate zoology, comparative anatomy, physiology, genetics, ecology, cellular biology, parasitology, entomology, or research courses in such subjects (Excess courses in wildlife biology may be used to meet the zoology requirements where appropriate.); and
  - At least 9 semester hours in botany or the related plant sciences.

or

2. **Combination of education and experience:** equivalent to a major in biological science (i.e., at least 30 semester hours), with at least 9 semester hours in wildlife subjects, 12 semester hours in zoology, and 9 semester hours in botany or related plant science, as shown in A above, plus appropriate experience or additional education.

*Research positions:* Degree with major in wildlife biology, zoology, or botany that included at least 30 semester hours of course work in biological science and 15 semester hours in the physical, mathematical, and earth sciences. This course work must have included:

- At least 9 semester hours of training applicable to wildlife biology in such subjects as mammalogy, ornithology, animal ecology, wildlife management, principles of population dynamics, or related course work in the field of wildlife biology; and
- At least 12 semester hours in zoological subjects such as invertebrate zoology, vertebrate zoology, comparative anatomy of the vertebrates, embryology, animal physiology, entomology, herpetology, parasitology, and genetics; and
- At least 9 semester hours in the field of botany and related plant science; and
- At least 15 semester hours of training in any combination of two or more of the following: chemistry, physics, mathematics, statistics, soils, and/or geology.