



Wildlife Research Permits: What IACUCs Need to Know

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National Institutes of Health
Office of Laboratory Animal Welfare

Permits to Study Wildlife

Collaborator's Permit No. *324* Expires December 31, 19*21*

UNITED STATES DEPARTMENT OF AGRICULTURE

PERMIT FOR CAPTURING MIGRATORY BIRDS FOR SCIENTIFIC HANDING PURPOSES

WASHINGTON, D. C. *December 10, 1921*

Permission is hereby granted under Regulation 9 of the Migratory Bird Treaty Act Regulations to *F. C. LINCOLN* of *Washington, D. C.*, to trap, in *any* State of *the U.S.* except on Federal or State bird or game reservations, at any time during the year nineteen hundred and twenty *two* migratory birds for banding purposes, and to possess such birds only for such period of time as may be necessary securely to band the same. *good until revoked*

This permit is issued subject to the conditions printed on the back not valid unless countersigned by the Chief, Bureau of Biological Survey.

Countersigned:

W. S. Kester
Acting Chief, Bureau of Biological Survey.

Franklin D. Roosevelt
Secretary of Agriculture.

Federal Permits for Wildlife Research Within the United States

- Migratory Bird Treaty Act
- Endangered Species Act
- Bald and Golden Eagle Protection Act
- Marine Mammal Protection Act

Plus other (non-regulatory) restrictions:
Airborne Hunting Act

Purpose of Laws Implemented Through These Permits

- Protection of wildlife populations
- Limitation on number of animals that can be studied, based on the population status of that species in that place (*place is a species-specific concept*)
- Estimation of population sizes of bird species and ESA species, derived from a wide variety of surveys and monitoring projects

Lethal Take: Reality Check

- In most studies, there is no lethal take/ permanent removal of individuals from the population. Permanent removal entails either removing live, wild animals for study in captivity or euthanizing an animal for various kinds of studies and for museum and teaching collections.
- In all studies involving permanent removal, the numbers of individuals taken is exceedingly small, both as to individual studies and overall.

Draft USFWS Policy, 1997

“The numbers of birds collected in the United States for scientific study are extremely low compared with other categories of human-related activities and apparently have had no obvious or significant impact on species or local populations.”

Top 10, All MBTA Species (1998- 2002)

1998	1999	2000	2001	2002
Steller's Jay 135	Steller's Jay 183	Song Sparrow 143	American Tree Sparrow 260	Song Sparrow 159
White-winged Dove 115	Song Sparrow 132	Steller's Jay 95	Song Sparrow 102	Steller's Jay 129
Spotted Towhee 84	Spotted Towhee 89	Spotted Towhee 83	Steller's Jay 91	Rock Sandpiper 72
Rock Sandpiper 69	Hermit Warbler 67	Rock Sandpiper 53	Black-throated Blue Warbler 59	Least Sandpiper 58
Song Sparrow 59	Townsend's Warbler 58	Black-throated Blue Warbler 52	Rock Ptarmigan 35	Wilson's Phalarope 53
Hermit Warbler 47	Rock Sandpiper 47	Lapland Longspur 33 Savannah Sparrow	Rock Sandpiper 34	American Avocet 51
Sage Sparrow 40	Lapland Longspur 45	Winter Wren 33	House Finch 31	Pygmy Nuthatch 49 Savannah Sparrow
Black-throated Blue Warbler 35	Snow Bunting 30	Pelagic Cormorant 32	Yellow-rumped Warbler 30	Black-throated Blue Warbler 47
Rock Ptarmigan 24	Townsend's x Hermit 26	Hermit Warbler 31	Red-winged Blackbird 29 Winter Wren	Townsend's Warbler 38
Snow Bunting 18	Gray-crowned Rosy Finch 25 Winter Wren	Semipalmated Sandpiper 26 Yellow-rumped Warbler	Dark-eyed Junco 24 Swainson's Thrush	Lapland Longspur 37 Rock Ptarmigan Western Sandpiper

Migratory Bird Treaty Act (MBTA)

- Enacted in 1916
- All native species
- Misleading name – it has nothing to do with actual migration; it is a historical reference to the treaty (with the UK; later Mexico, Japan, and Russia)
- List changes periodically – mostly to reflect taxonomic changes – but as of 2013, covers 1,026 species
- Official list is updated and published by U.S. Fish and Wildlife Service



50 CFR § 21.11 General Permit Requirements

“No person may take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such bird except as may be permitted under the terms of a valid permit issued pursuant to the provisions of this part and part 13 of this chapter, or as permitted by regulations in this part...”

Important Exception

50 CFR § 21.12 General exceptions to permit requirements.

The following persons or entities under the following conditions are exempt from the permit requirements:

(b)(1) ...public museums, ...and public scientific or educational institutions may acquire by gift or purchase, possess, transport, and by gift or sale dispose of lawfully acquired migratory birds or their progeny, parts, nests, or eggs without a permit:

Provided, that such birds may be acquired only from persons authorized by this paragraph or by a permit issued pursuant to this part to possess and dispose of such birds, or from Federal or State game authorities by the gift of seized, condemned, or sick or injured birds. Any such birds, acquired without a permit, and any progeny therefrom may be disposed of only to persons authorized by this paragraph to acquire such birds without a permit.

MBTA Permits

- Scientific collecting: lethal take, blood/feather/tissue collection if bird not being marked, and salvage of dead birds (issued by the USFWS regional offices)
- Bird banding/marking: may include blood and feather sampling if the bird is also being banded or marked; includes salvage of dead birds (issued by the USGS Bird Banding Lab)
- Import/export (issued by USFWS regional offices)
- Special purpose: activities that aren't covered by other, specific purpose such as moving nests or translocating eggs or young (issued by USFWS regional offices)
- The permitted activity can continue even if the permit has expired so long as the permittee has applied for renewal at least 30 days prior to the expiration date

MBTA & ESA Permits: Euthanasia

- The IACUC must assure that proposed activities meet the following requirements: AWAR [9 CFR 2.31(d)(v)]

Animals that would otherwise experience severe or chronic pain or distress that cannot be relieved will be painlessly euthanized at the end of the procedure or, if appropriate, during the procedure;

- **BUT as of 2017, the MBTA & ESA (Endangered Species Act) permits needed for research activities do NOT allow euthanasia**

Endangered Species Act (ESA)

- Enacted in 1973
- In 2017:
 - 81 species in the U.S. are listed as endangered
 - 18 species in the U.S. are listed as threatened
 - 214 species outside the U.S. are listed as endangered
 - 17 species outside the U.S. are listed as threatened



ESA Permits

- Recovery permits are needed for research in the U.S.
- In some circumstances, a researcher may need an ESA permit even if they are not studying an endangered species (because the research methods may impact an endangered species). There is no official guidance on this topic.

Bald and Golden Eagle Protection Act

Prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs.



The Act defines "**take**" as shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

"**Disturb**" means: "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available,

- 1) injury to an eagle,
- 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or
- 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

Marine Mammal Protection Act (MMPA)

- Enacted 1972
- Manatees, polar bears, sea otters, walruses, and dugongs are under the jurisdiction of the **U.S. Fish and Wildlife Service**
- Cetacea (whales and porpoises), pinnipedia, other than walrus (seals and sea lions) are under the jurisdiction of **NOAA** (National Oceanic and Atmospheric Administration)

MMPA: USFWS

Incidental Harassment Authorization (IHA)

Section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA) established an expedited process to apply for authorization for incidental take of small numbers of marine mammals where the take will be limited to harassment. The Service may issue an IHA for a period of up to one year. The MMPA establishes the following schedule for consideration of requests for IHAs:

- Review of application and publication in Federal Register (45 days)
- Public comment period (30 days)
- Issue or deny authorization (45 days)

MMPA: USFWS permits

50 CFR §18.31(c) *Issuance criteria.*

In determining whether to issue a scientific research permit, the Director shall consider whether the proposed taking or importation will be consistent with the policies and purposes of the Act; and whether the granting of the permit is required to further a bona fide and necessary or desirable scientific purpose, taking into account the benefits anticipated to be derived from the scientific research contemplated and the effect of the purposed taking or importation on the population stock and the marine ecosystem.

MMPA: NOAA Permits

(If NOT ESA-listed)

A Letter of Confirmation (LOC) under the General Authorization IF

- The research will not exceed **Level B harassment**.
- Qualifying activities may include:
photo-identification, behavioral observations, aerial surveys, and passive acoustics (listening for sound rather than trying to evoke a response to an auditory stimulus).

The LOC process is simpler and faster than applying for a standard scientific research permit. Apply 4-6 months before the start of the proposed fieldwork.

MMPA: NOAA Permits

Activities that cannot be authorized by an LOC:

- Research on pinniped rookeries
- Import/export of marine mammals or their parts
- Research such as tagging or biopsy sampling that would exceed Level B harassment

MMPA: NOAA Permits

- Not ESA but not qualified for General Authorization
- **Level A Harassment** has the potential to injure a marine mammal or marine mammal stock in the wild
- NOAA Fisheries recommends submitting applications at least 6 months in advance of the intended research start date for non-ESA listed species

MMPA: NOAA

An environmental assessment (EA) or environmental impact statement (EIS) may be necessary if proposed research or enhancement activities:

- are the subject of public controversy based on potential environmental consequences,
- have uncertain environmental impacts or unknown risks,
- may result in cumulatively significant impacts, or
- may have an adverse effect upon endangered or threatened species or their habitats.

MMPA: ESA-listed Species

Both USFWS and NOAA:

Same application form but additional scrutiny is given by the agency before issuing the permit.

NOAA takes as much as a full year to issue such permits.

Place-based Permits: Federal

- All federally managed public lands (national parks, national wildlife refuges, national forests and grasslands) require permits.
- The Bureau of Land Management (BLM) is an exception as it has a very limited permits system (as of 2017).
- Most agencies have an informal authorization system for research that will have limited impact.
- The place-based permit system overall is very complex and requires a rigorous analysis.

Place-based Permits: States

- Intended to foster public safety, limit damage to natural resources, and to prevent user conflict (especially during hunting season).
- Often require advance notice as to specific times and places.
- State agencies will often consider population status and limit numbers if there is no federal permit that limits numbers; they may also require that the activity be distributed across a wider area or multiple subpopulations

Place-based Permits: Private Property

Researchers, like everyone else, require permission to enter and conduct research activities on privately owned land.

Federal Permits, Import/Export

- Migratory Bird Treaty Act
- Endangered Species Act
- Bald and Golden Eagle Protection Act
- Marine Mammal Protection Act
- Wild Bird Conservation Act
- CITES (Convention on International Trade in Endangered Species)
- Lacey Act (enforcement of foreign laws via permits from country of origin)
- APHIS (all birds, some mammals)

Plus (non-permit) requirements: Nagoya Protocol

Imports / Exports

Two basic issues:

1. Enforcement of U.S. laws, international treaties, and foreign laws intended to protect populations.
2. Prevention of introduction of non-native wildlife (Lacey Act) and pathogens (Animal Health Protection Act, 7 U.S.C. 8301 *et seq.*).

Lacey Act

- **The Lacey Act makes it a crime to import in violation of the laws of another country**
- Prohibits import (except by permit) of listed non-native species that could be “injurious” to the interests of agriculture, horticulture, wildlife, or wildlife resources
- Very few species are listed
- Has a rudimentary provision regarding humane transport under which the USFWS has adopted the International Air Transport Association (IATA) regulations for air transport of animals



Convention on International Trade in Endangered Species (CITES)

- Went into force in 1977
- Import/export of listed species
- Permit type and procedures depend on type of listing
- A species can be ESA *and* CITES



CITES Basics

- Species for which **international trade** threatens survival
- Covered species listed in three Appendices:
 1. Appendix I: requires both import and export permits,
 2. Appendix II: requires only an export permit, and
 3. Appendix III: requires only an export permit from the countries where the species is listed
- Scientific institutions can be registered for exchanges with other registered institutions; no permit is needed for these transactions

Wild Bird Conservation Act

- Import of live birds
- Covers all CITES species except budgies, cockatiels, and nine bird families
- Permits can be issued for scientific research



State Permits

- Every state has some permit requirement from very basic to highly restrictive (California); generally one permit covers all activities and they are usually called “scientific collecting” (even though scientists don’t use that term so broadly); several states do not require banding permits if the only marking to be used is the federal band.
- State laws/permits often prohibit release of wild animals studied in captivity. IACUCs should keep this in mind, given that the *ILAR Guide* indicates that “When species are removed from the wild, the protocol should include plans for either a return to their habitat or their final disposition, as appropriate.” (p.32) Given permit restrictions, “as appropriate” could mean euthanizing otherwise healthy animals.

Keep Your Faculty and Students Out of Jail!



Practical Issues

- OLAW does not usually recommend the conditional approval of animal use protocols.
- Some institutions require the investigator to provide all permits prior to, at the time of protocol review, or prior to approval, which may not be practical for all research.
- Permits may not be received until a few days prior to the time the work is to begin – and for wildlife research, this time is not flexible.
- Wildlife research is generally dictated by the season, especially for migratory species.

Best practice

- Researcher submits protocol, listing required permits and giving status of each permit (researcher has current permit or researcher has applied or, will apply for permits)
- If the IACUC finds the protocol to be acceptable, the best practice for the IACUC would be to indicate in writing that the protocol has been approved but that the animal work is not to begin until required permits are obtained.
- **According to OLAW, this practice is acceptable.**

Reality Check

It is a federal offense to conduct research involving activities that would require a permit if the researcher does not have a valid permit. Depending on the statute, there are civil and criminal penalties including fines and incarceration and at the very least, it is likely that the researcher will be ineligible for future permits for some time or even permanently.

Population-level Impacts: Study Animals

- Nothing in the Animal Welfare Act or the implementing regulations, nothing in the Health Research Extension Act (HREA) or PHS Policy, nothing in the U.S. Government Principles, and nothing in the ILAR *Guide* requires an IACUC to consider the potential population-level impact of wildlife studies. **All are silent on this subject.**
- Why do IACUCs address this issue? Arguably, it could be seen as a corollary of the requirement to use the minimum number of animals necessary to obtain valid results.

REALITY: This Inquiry is Likely to be Unproductive

- Most field research methods involve no removal of individuals from the wild and do not have lasting impacts on survival and reproduction.
- Population-level impacts are difficult to predict. The researcher may not have sufficient knowledge of population sizes and species interactions. There may be no published information and a census, even if possible or practical, will not yield sufficient information. A single census at a given point in time will not produce useful population estimates because wild populations can fluctuate widely over seasons and years.

The impacts, if any, are far too speculative to warrant a review by the IACUC.

Population Biology, a.k.a Considerable Uncertainty

- Population sizes change for a wide variety of reasons and it would be virtually impossible to attribute a change in population size to a given research protocol which are typically of short duration and generally involve very few animals.
- IACUC review of these concerns would also require that the IACUC members have sufficient understanding of quantitative population biology to assess the available data and the time to do the analysis.

Permits Protect Populations

These permits are issued by agency staffers who have knowledge of population status and trends. Permit approval means that the officials have determined that the take needed for the study will not be detrimental to the population or that any population-level impact is justified by the value of the knowledge to be gained. Where multiple permits are issued, the IACUC has even greater assurance because these permits means that at least two different agencies, one at a federal level and the other - usually more local - have considered the potential impacts.

Other Animals in the Study Area

- Wildlife research conducted in the field has the potential to impact animals not actually used in the study: other animals in the population from which the study animals are drawn and other species that may be affected by the researcher's presence or the study methods.
- This question must be addressed in the protocol even if no permits are required.

APHIS Permits

Import regulations cover live birds and anything that was once part of a bird



Imported birds must go through USDA quarantine and testing. No live birds can be imported from countries or regions where any form of Highly Pathogenic Avian Influenza (HPAI) occurs.



APHIS: Import of Live Birds

All live birds must have veterinary health certificate from a government official of the country of origin. This generally requires quarantine and testing. The birds go directly from the plane to quarantine in an 'all-in-all-out system' in the U.S. If even one bird tests positive for pathogens, all birds are destroyed. They test only for Exotic Newcastle Disease (END) and HPAI so even after the birds are released to the research institution, they should be quarantined and tested for other pathogens and parasites that can affect their health or behavior.

Specimens and Samples from Birds and Certain Mammals

- An APHIS VS16-3 permit is required
- Permit conditions vary depending on pathogen
- Example – Any bird specimen or sample coming from a country where any form of HPAI is present, must be treated to inactivate the virus, using a USDA-approved method
- Anything bird coming from a country where END (but not HPAI) is present, can be imported untreated into a USDA-certified BSL2 lab, but must be treated if the lab is not USDA-certified

Status of APHIS Rats, Mice, Birds Regulation

- 2004: Final Rule issued to include rats, mice, birds – not bred for use in research – in the regulatory definition of animal.
- 2004: Advance notice of public rulemaking.
- 2011 Fact Sheet: There were more than 7,400 comments submitted in response to the advance notice.

Stakeholder Notice: December 2012

- “Since the 2011 fact sheet, Animal Care had initiated some revisions to the draft document that would **extend the time it takes to publish a proposed rule in the Federal Register.**”
- AC was evaluating a number of implementation issues – particularly those pertaining to birds. Feasibility issues included number of entities to be covered by the new rule, wide variation in facilities, and the number and types of avian entities.
- Concern about additional resources and training needed by regulated entities as well as the need to additional AC personnel and training.

Let's Talk!



Problems are occasionally so specific and complex that the answer is unique to that species/activity/place combination. For any questions about permits (or ornithological research), please get in touch!

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Thank you