UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

JUL 18 2007

Tylan Schrock
Alaska SeaLife Center (ASLC)
P.O. Box 1329
301 Railway Avenue
Seward, AK 99664

Dear Mr. Schrock

Enclosed is an amendment to Permit No. 881-1745-01, for research activities on Steller sea lions (*Eumetopias jubatus*). The amendment has been assigned Permit No. 881-1745-02 and the changes to specific Terms and Conditions are reflected in bold font in the attached permit. This permit amendment is effective upon your signature and valid through the expiration date indicated in Condition B.5. Please note that this permit amendment replaces all previous versions of the permit.

Both an original and a "file copy" of the signature page are enclosed with your permit. Please sign and date both pages where indicated, keeping the original with the permit for your records. You must return the "file copy" signature page, with your dated signature, to this office as proof of your acceptance of the permit. Please return the signature page marked "file copy" to the Chief, Permits Division (F/PR1), 1315 East-West Highway, Silver Spring, MD 20910. You may also submit the "file copy" of the signature page by facsimile to 301-427-2521 and confirm it by mail.

Please be advised that, pursuant to Condition F.9 of the enclosed amended permit, NMFS will not accept or process requests for amendments to the permit. NMFS is working with the Marine Mammal Commission to organize an independent review of the Steller sea lion and northern fur seal research program and develop a research implementation plan to address issues of coordination, monitoring, and applicability of research to species conservation. The program review and implementation plan were identified as action items in the Final Programmatic Environmental Impact Statement (PEIS) for Steller Sea Lion and Northern Fur Seal Research. The review and plan will, in conjunction with a supplement to the PEIS, inform NMFS' decisions on future permits for these species.

As the Responsible Party for the Holder of this permit, you are ultimately responsible for all activities of any individual operating under its authority. Therefore, you should read all sections of the permit carefully before signing it and before conducting any activities pursuant to the permit.

If you have any problems or questions, please contact Amy Sloan or Dr. Tammy Adams at 301-713-2289 before signing the permit.

Sincerely,

P. Michael Payne
Chief, Permits, Conservation
and Education Division
Office of Protected Resources

Enclosure

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

Permit No. 881-1745-02
Expiration Date: August 1, 2009

PERMIT TO TAKE MARINE MAMMALS FOR SCIENTIFIC RESEARCH AND ENHANCEMENT PURPOSES
Amendment No. 2

I. Authorization

The Alaska SeaLife Center (ASLC), P.O. Box 1329, Seward, AK [Responsible Party: Tylan Schrock], is hereby authorized to take marine mammals in the manner specified below for the purposes of scientific research and enhancement, subject to the provisions of the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 *et seq.*), the regulations governing the taking and importing of marine mammals (50 CFR Part 216), the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq.*), the regulations governing endangered fish and wildlife permits (50 CFR Parts 222-226), and the Terms and Conditions hereinafter set forth. **This permit amendment supersedes all previous versions of the permit.**

II. Abstract

The purpose of the authorized research, as stated in the application, is to investigate stress responses, endocrine and immune system function, and seasonal variations to normal biological parameters in captive Steller sea lions (*Eumetopias jubatus*) at the ASLC. Additionally, the ASLC will conduct research and development of external tags and attachments and test less-intrusive research methods on the captive Steller sea lions for future deployment in the field on wild Steller sea lions. Projects include 1) "Condition Assessment," 2) "Endocrinology and Immunology Study," 3) "Assessing Metabolism in Steller Sea Lions: Implications for Energetic and Digestive Costs at Sea," 4) "Metabolic Demands of Steller Sea Lion Survival," 5) "Biotelemetric Monitoring of Foraging Behavior," **and 6) "Physiology of Gestation and Lactation."**

III Terms and Conditions

The activities authorized herein must occur by the means, in the area, and for the purposes set forth in the permit and amendment applications, and as limited by the Terms and Conditions specified in this permit.

A. Number and Kind(s) of Marine Mammals and Location(s)

1. The following tables outline the number of animals, by species, authorized to be taken and the activities authorized to be performed on each animal. The Researchers [Principal Investigator (PI), and/or Co-investigator(s) (CI(s))] may conduct research activities at the ASLC.

2. The following Steller sea lions are hereby authorized to be permanently held at the ASLC for purposes of scientific research and enhancement and may participate in the studies as authorized in Tables 1 **and 2**:

   a. Male, "Woody" (NOA0005799), date of birth (DOB) estimated 6/1/1993;
   b. Female, "Sugar" (NOA0005801), DOB estimated 6/1/1993;
   c. Female, "Kiska" (NOA0005800), DOB estimated 6/1/1993; **and**
   d. **Up to 4 pups (not to exceed 3 males) born at ASLC, ID and DOB to be determined.**

3. Take Tables.

Table 1. Annual takes for captive Steller sea lions identified in this permit amendment. Takes are described for each project, with some take activities overlapping among existing projects. Takes described for multiple projects are "piggy-backed" to the maximum extent practicable. **ADULTS & JUVENILES AGED >12mo.**

Project I: Condition Assessment, Project II: Endocrinology and Immunology Study, Project III: Assessing Metabolism in Steller Sea Lions: Implications for Energetic and Digestive Costs at Sea, Project IV: Metabolic Demands of Steller Sea Lion Survival, Project V: Biotelemetric Monitoring of Foraging Behavior, **Project VI: Physiology of Gestation and Lactation (ADULTS only as identified in Section III. A. 2. a-c)***

Project and Activity/Take	# Takes/ Animal/ Year	Notes
1. Measure body mass and morphometrics	Up to daily under behavioral control	All Projects
2. Blubber depth measurements using ultrasound	Up to daily under behavioral control	-Condition Assessment -Assessing Metabolism **-Physiology of Gestation and Lactation**
3.a. Routine Blood Samples: total volume per month (including other studies requiring blood samples) not to exceed 5% calculated blood volume based upon animal body mass at time of sample	Once every month, up to 12x/year[1]	-Condition Assessment -Endocrinology and Immunology -Metabolic Demands **-Physiology of Gestation and Lactation**
3.b. Additional Blood Samples: total volume per month authorized in 3.a	Once a week for up to 4 consecutive weeks, no more than 4x/year; of the 4 consecutive weekly samples, one sample must include a monthly sample from 3.a[1]	-Condition Assessment Endocrinology and Immunology -Metabolic Demands **-Physiology of Gestation and Lactation"**

Table 1. Annual takes for captive Steller sea lions identified in this permit amendment. Takes are described for each project, with some take activities overlapping among existing projects. Takes described for multiple projects are "piggy-backed" to the maximum extent practicable. **ADULTS & JUVENILES AGED >12mo.**

Project I: Condition Assessment, Project II: Endocrinology and Immunology Study, Project III: Assessing Metabolism in Steller Sea Lions: Implications for Energetic and Digestive Costs at Sea, Project IV: Metabolic Demands of Steller Sea Lion Survival, Project V: Biotelemetric Monitoring of Foraging Behavior, **Project VI: Physiology of Gestation and Lactation (ADULTS only as identified in Section III. A. 2. a-c)***

Project and Activity/Take	# Takes/ Animal/ Year	Notes
4. Bio-electrical Impedance Analysis (BIA)	Once every month, up to 12x/year while under anesthesia	-Condition Assessment -Metabolic Demands **-Physiology of Gestation and Lactation**
5. Total Blood Volume (TBV): initial 3 ml blood draw followed by up to 0.5 mg/kg injection of Evan's Blue Dye; 3 ml blood samples drawn 10 and 20 minutes after injection	Once every 4 months, up to 3x/year	-Condition Assessment **-Physiology of Gestation and Lactation**
6. D_2O Administration: 2 ml pre-administration blood sample followed by D_2O administration (dosage up to 0.7g/kg + 10% IM); 2ml blood sample at 2 hours post D_2O injection. Once yearly for validation purposes, additional blood sample at 1 hour post D_2O injection is collected	Once every month, up to 12x/year	-Condition Assessment -Assessing Metabolism -Metabolic Demands **-Physiology of Gestation and Lactation**
7. Nutritional Physiology: Food trials, dietary manipulation (includes live fish **and dietary markers**)	Diet change to be determined; fasting or caloric restriction not to exceed 14 days 4x/year[2]	-Condition Assessment -Assessing Metabolism -Metabolic Demands -Biotelemetric Monitoring of Foraging Behavior **-Physiology of Gestation and Lactation**
8. Epidermal and mucosal swabs and collections of saliva and other secretions; examine and measure external genitalia	Up to 3x/ week under behavioral control or when under restraint or anesthesia for other procedures	-Condition Assessment **-Physiology of Gestation and Lactation**
9. Blubber biopsies (up to 2g/sample)	Up to 6 x/year while under anesthesia[3]	-Condition Assessment **-Physiology of Gestation and Lactation**
10. Imaging: Video, photographic, digital, and thermal imaging of animals	Up to daily under behavioral control, or when under anesthesia for other procedures	All Projects
11. Radiographic examination - Total annual exposure not to exceed the safe limits for human radiation workers for total effective dose equivalent to the whole body, which is 5,000 mrem (50 mSv) per year.	Up to daily when conducted under behavioral control, or when under anesthesia for other procedures.	-Condition Assessment -Biotelemetric Monitoring of Foraging Behavior **-Physiology of Gestation and Lactation**

Table 1. Annual takes for captive Steller sea lions identified in this permit amendment. Takes are described for each project, with some take activities overlapping among existing projects. Takes described for multiple projects are "piggy-backed" to the maximum extent practicable. **ADULTS & JUVENILES AGED >12mo.**

Project I: Condition Assessment, Project II: Endocrinology and Immunology Study, Project III: Assessing Metabolism in Steller Sea Lions: Implications for Energetic and Digestive Costs at Sea, Project IV: Metabolic Demands of Steller Sea Lion Survival, Project V: Biotelemetric Monitoring of Foraging Behavior, **Project VI: Physiology of Gestation and Lactation (ADULTS only as identified in Section III. A. 2. a-c)***

Project and Activity/Take	# Takes/ Animal/ Year	Notes
12. Urine, feces, whisker **and milk** collection	Urine and feces: up to daily if collected opportunistically after natural excretion; Whiskers: two vibrissae pulled 4x/year[4] **Milk: up to daily under behavioral control or when under restraint or anesthesia during other procedures**	-Condition Assessment -Assessing Metabolism **-Physiology of Gestation and Lactation**
13. Gas anesthesia	As deemed necessary by attending veterinarian and in coordination with other projects	All Projects
14. Hormone Stimulation: ACTH (2 IU/kg) or TSH (0.1 IU/kg) administration + post dosage samples; potential dry holding for up to 4 days for post dosage fecal sample collection	3x/year[5]	-Endocrinology and Immunology only
15. Attachment and removal of instrumentation (recorder, sensors, monitors, etc.) using various attachment methods (epoxy, harness, etc.)	Up to daily under behavioral control; 2x/month if restrained/anesthetized	-Assessing Metabolism -Metabolic Demands -Biotelemetric Monitoring of Foraging Behavior **-Physiology of Gestation and Lactation**
16. Underwater foraging and drag trials	Up to daily under behavioral control	-Assessing Metabolism -Metabolic Demands -Biotelemetric Monitoring of Foraging Behavior **-Physiology of Gestation and Lactation**
17. Bioenergetics: determine resting and active metabolic rate, heart and breathing rate, flipper stroke frequency, body temperature and heat flux using chambers, cages, pools, etc.	Up to daily under behavioral control[6]	-Assessing Metabolism **-Physiology of Gestation and Lactation**
18. DLW Validation: initial 10ml blood sample followed by injection of DLW (D_2O and Oxygen-18; 1ml/kg body weight); post-injection blood samples at 1, 2, 4, and 6 hours as described in application: followed by dry-holding up to 96 hours for simultaneous	2x/year[7]	-Assessing Metabolism **-Physiology of Gestation and Lactation**

Table 1. Annual takes for captive Steller sea lions identified in this permit amendment. Takes are described for each project, with some take activities overlapping among existing projects. Takes described for multiple projects are "piggy-backed" to the maximum extent practicable. **ADULTS & JUVENILES AGED >12mo.**

Project I: Condition Assessment, Project II: Endocrinology and Immunology Study, Project III: Assessing Metabolism in Steller Sea Lions: Implications for Energetic and Digestive Costs at Sea, Project IV: Metabolic Demands of Steller Sea Lion Survival, Project V: Biotelemetric Monitoring of Foraging Behavior, **Project VI: Physiology of Gestation and Lactation (ADULTS only as identified in Section III. A. 2. a-c)***

Project and Activity/Take	# Takes/ Animal/ Year	Notes
respirometry		
19. Bioenergetics and Metabolic Development: Dietary marker administration + dry holding for up to 72 hours for post dosage fecal and urine sample collection	4x/year[8]	-Assessing Metabolism **-Physiology of Gestation and Lactation**
20. Protein Turnover: Stable isotope and tissue metabolism: ingestion or IV administration of stable isotope ^{13}C and ^{14}N and post dosage blood sampling (serum samples collected approximately at 3 hours, 1 day, 2 days, 5 days, 10 days, 20 days: and then monthly blood samples taken concurrent with "Condition Assessment" project; sampling times/days may vary slightly to allow for piggy backing with other projects to minimize handling/sampling frequency, but will not exceed the number of samples listed above)	Once every 4 months	-Metabolic Demands **-Physiology of Gestation and Lactation**
21. Stomach temperature telemetry	Up to daily under behavioral control, or when under anesthesia for other procedures	-Biotelemetric Monitoring of Foraging Behavior **-Physiology of Gestation and Lactation**
22. Determination of mystacial vibrissae sensitivity and hydrodynamic trail detection (includes attachment of eye caps and head phones)	Up to daily under behavioral control	-Biotelemetric Monitoring of Foraging Behavior only
22. Transrectal or transvaginal ultrasonography	**Up to daily under behavioral control, or when under anesthesia for other proceedures[10]**	**-Physiology of Gestation and Lactation only**
23. Copulation & parturition	**Via natural means[11]**	**-Physiology of Gestation and Lactation only**
24. Serious injury or mortality of one animal	**During copulation, gestation, parturition, or lactation; aborted or still born pups will be counted**	**-Physiology of Gestation and Lactation**

*** Where applicable, unweaned pups may be separated from mothers for a maximum of 4 consecutive hours during research procedures.**

[1] Routine blood sampling may occur once every month (i.e., once every calendar month with a minimum interval of 21 days); weekly blood sampling (i.e., once every 7 days), which is not routine, may occur around dietary changes **or significant reproductive events (e.g., estrus, end of embryonic diapause, etc.)**, no more that 4 times per year for up to 4 consecutive weeks, followed by at least 30 days before another round of weekly sampling occurs. Where weekly sampling occurs, one monthly sample must be used for one of the consecutive weeks (i.e., the monthly take will count as one of the weekly takes, for no more than 4 samples taken in a month, and the total number of samples may not exceed 24 per year).

[2] Consecutive fasting or caloric restriction trials will be separated by a minimum interval of 60 days. **Fasting studies will not be conducted on gestating or lactating animals.**

[3] Consecutive blubber biopsies will be separated by a minimum interval of 7 days.

[4] Consecutive whisker removal procedures (2 whiskers each procedure) will be separated by a minimum interval of 14 days.

[5] Only a total of 3 trials of either ACTH or TSH are authorized per year (i.e., not 3 trials each); consecutive ACTH or TSH trials will be separated by a minimum interval of 30 days.

[6] Metabolic Measurements

Resting in air up to 2 hours - up to daily - 50 times per year;
Diet metabolic variation - up to 72 hours - up to 6x per year;
Heat increment of feeding - up to 12 hours - up to 1x per week not to exceed 24 trials per year;
Resting in water up to 15 minutes - up to daily - 50 times per year;
Swimming - up to 2 hours - up to daily - not to exceed 30 complete trials;
Fasting or caloric restriction - can last up to 14 days - metabolic measurements of the various types listed above would occur throughout the experiment (not exceeding the frequency noted per activity) - 4x per year.

[7] Consecutive DLW validation trials will be separated by a minimum interval of 90 days.

[8] Consecutive dietary marker and associated dry holding trials will be separated by a minimum interval of 14 days.

[9] **Volume of milk collected is not to exceed 100ml per day.**

[10] **Transrectal or transvaginal ultrasonography may occur up to daily if under behavioral control or restraint, or under general anesthesia during other procedures only.**

[11] **Copulation will be through natural coupling of captive adult animals identified in Section III. A. 2. a-c that are maintained at ASLC. Final disposition of offspring is the ASLC.**

Table 2. Annual takes for captive Steller sea lion pups born at ASLC. PUPS AGED 0-12 mo. **Project VII: Condition Assessment of Pups ***		
Project and Activity/Take	**# Takes/ Animal/ Year**	**Notes**
1. Measure body mass and morphometrics	**Up to daily under behavioral control**	**Condition Assessment of Pups**
2. Blubber depth measurements using ultrasound	**Up to daily under behavioral control**	
3. Routine Blood Samples: total volume per month (including other studies requiring blood samples) not to exceed 5% calculated blood volume based upon animal body mass at time of sample	**Once every month, up to 12x/year[12]**	
4. Urine and feces	**Up to daily if collected opportunistically or under behavioral control or when under restraint for other procedures.**	
5. Visual and audio recordings: Video, photographic, digital, and thermal imaging, as well as audio recordings of pups	**Up to daily under behavioral control or when under restraint for other procedures.**	
6. Radiographic examination	**Up to daily when conducted under behavioral control or when under anesthesia for other procedures.** **Total annual exposure not to exceed the safe limits for human radiation workers for total effective dose equivalent to the whole body, which is 5,000 mrem (50 mSv) per year.**	
7. Bioenergetics: determine resting and active metabolic rate, heart and breathing rate, body temperature and heat flux using chambers, cages, pools, etc.	**Up to daily under behavioral control[13]**	
8. Gas anesthesia	**As deemed necessary by Attending Veterinarian and in coordination with other projects**	

*** Where applicable, unweaned pups may be separated from mothers a maximum of 4 consecutive hours during research procedures.**

[12] Routine blood sampling may occur once every month (i.e., once every calendar month with a minimum interval of 21 days).

[13] <u>Metabolic Measurements</u>
Resting in air up to 2 hours - up to daily - 50 times per year;
Resting in water up to 15 minutes - up to daily - 50 times per year;
Swimming - up to 2 hours - up to daily - not to exceed 30 complete trials.

B. Research Conditions [50 CFR 216.36(b)]

1. General:

a. The following individuals may participate in the conduct of the research authorized herein: PI: Dr. Shannon Atkinson; CIs: Don Calkins, Dr. Russ Andrews, Dr. Jo-Ann Mellish, Lisa Hartman, Brett Long, Kendall Mashburn, and Justin Jenniges.

b. **In the event serious injury or mortality reaches that authorized in Part A, Table 1**, research must be immediately suspended and the protocol must be reviewed, and if necessary, revised to the satisfaction of the National Marine Fisheries Service (NMFS) in consultation with the Marine Mammal Commission. The Permit Holder must submit in writing within two weeks a report that includes a complete description of the events surrounding the incident and identification of steps that will be taken to reduce the potential for additional mortalities. The Permit Holder must send this report to the Chief, Permits, Conservation and Education Division, F/PR1, 1315 East-West Highway, Silver Spring, MD 20910. Research may recommence upon review of that information and authorization by the Chief, Permits, Conservation and Education Division. [50 CFR Section 216.34(b)]

c. Where required by the Permit Holder's facility/institution, no intrusive research on animals may occur until the research protocols have been reviewed and approved by the Permit Holder's Institutional Animal Care and Use Committee (IACUC), and a copy of the signed approval and any comments on the protocols is received by the Permits, Conservation and Education Division.

2. Specific:

a. Pinnipeds used in captive experiments must be maintained only in Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture certified approved research facilities, and in compliance with the regulations and provisions of the Animal Welfare Act (AWA).

b. The Permit Holder and PI must closely coordinate the timing and conduct of all research activities to ensure that studies do not confound one another, compromise the rigor of the results, or create undue stress or negative effects on the animals (as described in Condition B.2.l below).

c. The attending veterinarian must monitor research conducted on ASLC Steller sea lions. The attending veterinarian must be made aware of and be consulted on each study being conducted and receive on-going progress reports on any changes to the research protocol and on each animal's condition throughout the course of the study.

d. All animals undergoing research must be closely monitored to determine if research activities are having an adverse effect on the individual(s). The attending veterinarian must be available for emergencies, illnesses, and for treating any health problems associated with the research procedures.

e. To the maximum extent possible, all procedures must be conducted in the least intrusive manner possible and cooperatively with the routine care and husbandry of the sea lions. To the maximum extent possible, animals should be trained to allow for voluntary blood sampling and other medical and husbandry procedures. Anesthesia and/or sedation must be provided to the animals, as deemed necessary and appropriate by the attending veterinarian, to minimize/eliminate pain and discomfort.

f. To minimize potential adverse effects on the animals, research and sampling procedures must be consolidated, to the maximum extent possible, during the monthly Condition Assessment sampling.

g. Studies involving food deprivation must be conducted under the direct supervision of an attending veterinarian.

h. The attending veterinarian must make decisions on skin closure options post-biopsy.

i. Intravenous catheterization must be used to the maximum extent practicable for all projects requiring serial blood sampling.

j. Sterile, disposable needles, biopsy punches, etc. must be used to the maximum extent possible (always use sterile or sterile disposable needles for blood sampling and injections of drugs or other approved substances); when disposables are not available, thoroughly disinfect (with a bacteriocidal/virucidal agent) all biopsy needles, etc. thoroughly between animals and immediately prior to each use.

k. Experienced husbandry staff must be present during research procedures to observe the behavior and address physical needs of the sea lions. The attending veterinarian must be available on 24-hour call, and physically present when serial blood sampling procedures or other intrusive procedures (e.g., biopsies) are conducted, and when isotopes, sedation, or gas anesthesia are administered. Anesthetization/sedation of animals and invasive procedures such as blood sampling and blubber biopsies may be done only by experienced, qualified personnel after training by the veterinarian.

l. Weekly blood sampling may only occur at the discretion of the attending veterinarian and experienced husbandry staff to ensure that the increased sampling frequency does not compromise the health and well being of the sea lions or the ability to conduct other authorized activities.

m. The experienced husbandry staff and attending veterinarian must ensure that the research events proceed with minimum handling and stress. If any sea lion shows signs of pain, suffering, or stress (e.g., abnormal respiration, inability to rest comfortably, overheating, dehydration, inflammation at venipuncture or catheter site; marked change in behavior such as increased aggression, vigorously challenging restraint, aberrant behavior; etc.) or if any of the blood parameters monitored fall outside of acceptable ranges, the research must be halted until the attending veterinarian and experienced husbandry staff have consulted with the Researchers, and determined that the animal has recovered sufficiently to continue participation in the research. The attending veterinarian and Husbandry Director have authority to stop any research procedures that appear to be causing undue stress or danger to the animals.

n. <u>The Permit Holder or PI must submit annual sampling schedules for review by the Permits, Conservation and Education Division each year the permit is valid</u>. The sampling schedule should be sent one month prior to initiation of research for the next year (i.e., by December 1).

3. Captive Holding/Enhancement

a. No marine mammal obtained under this permit may be released into the wild unless such a release has been authorized under a major amendment or a separate scientific research permit issued for that purpose.

b. Any public display of the Steller sea lions must be incidental to and not interfere with the scientific research or enhancement described in this permit. Such incidental public display may only occur as part of an educational program. A portion of this program must describe the research and enhancement activities, identify the status of the species under the ESA, and provide information regarding the natural history, distribution, population status, and threats to the species. The sea lions taken under the authority of this permit must not be trained for performance or included in any interactive program with the public. (50 CFR part 216.41(b)(6)(v))

c. Disposition: The Permit Holder shall not sell, transport, transfer, export or otherwise dispose of 1) any Steller sea lion authorized by this permit; or (2) any marine mammal under NMFS jurisdiction and in the ASLC's custody or control under a separate scientific research permit on the date of issuance of this permit or subsequently acquired, except with the approval of the Director, Office of Protected Resources, and subject to such terms and conditions as the Director may prescribe.

d. Marine mammals held for rehabilitation at the ASLC under a current NMFS Letter of Authorization (LOA) may be released, transported, transferred, or otherwise disposed of according to the terms of that LOA. The Permits, Conservation, and Education Division must authorize any intrusive research on marine mammals in rehabilitation through an amendment to this permit or through a separate scientific research permit.

e. The subject sea lions may be made available for scientific studies to researchers who have obtained authorization through amendments to this permit or through a separate research permit. Researchers must submit detailed protocols for individual research projects on an opportunistic basis for review and approval by the Permits, Conservation and Education Division. No additional take involving research or changes in study design may occur without an amendment to this permit.

4. Biological samples: All specimen materials collected or obtained under this authority shall be maintained according to accepted curatorial standards. After completion of initial research goals, any remaining samples shall be deposited into a *bona fide* scientific collection that meets the minimum standards of collection, curation, and data cataloging as established by the scientific community. Remaining samples may be archived for future analysis provided that the project descriptions are provided to the Permits, Conservation and Education Division for approval and inclusion in the permit file. The Alaska Regional Office must approve and authorize any transfer of samples to other researchers not listed in the permit application. Attached is Section 216.37 of the Regulations Governing the Taking and Importing of Marine Mammals that contains additional conditions applicable to maintaining marine mammal parts. These regulations are made a part hereof.

5. Expiration Date: Researchers may conduct activities authorized by this permit through **August 1, 2009. This permit expires on the date indicated, cannot be extended, and is non-renewable.**

C. Coordination Conditions

1. NMFS Observers: NMFS reserves the right to have observer(s) on the ASLC premises to monitor the effects of authorized activities on the animals. NMFS will provide the Permit Holder with sufficient notice to ensure that adequate accommodations are provided to the observer(s).

2. Coordination: Activities conducted under this permit and those of other permit holders who might be carrying out similar research on captive Steller sea lions must be coordinated and, as possible, data and samples shared, to increase sample sizes and avoid unnecessarily duplicative research or adverse impacts to the animals.

D. Reporting Conditions

1. Annual Reports: Each year the permit is valid, the Permit Holder must submit an annual report for a one-year reporting period (January 1 through December 31). The report is due March 31 each year (three months after the end of reporting period), describing the specific activities that have been conducted. The annual report must be both tabular and narrative in nature, and follow the format outlined in Appendix A.

a. The annual report must include, in tabular form:

1) Animal ID;

2) Activities conducted on each animal and for which projects they were conducted; and

3) Date and number of times each activity was performed on each animal.

b. The annual report must also include, in narrative form:

1) A detailed description of the animals' reactions to the activities and steps taken, if necessary, to minimize disturbance, stress, pain, and suffering;

2) A description of each sea lion's health status;

3) How the results of this reporting period demonstrate the accomplishments of your research goals and how such goals pertain to the Steller sea lion Recovery Plan;

4) A description of the activities planned for the forthcoming year (including any changes to annual sampling schedule) and steps that have been and will be taken to coordinate the research activities with other researchers; and

5) A description of when or if any results have been published or otherwise made public during the reporting period. [Note that any documents (including reports, manuscripts, and video or still photos) resulting from work conducted under the authority of this permit should refer to the permit by number.]

2. Final Reports: The Researchers must submit a final report within 180 days after completion of the research, or expiration date of the permit, whichever occurs first. The report must follow the format outlined in Appendix A and include:

a. A reiteration of the objectives and a summary of the results of the research (including a cumulative summary of takes) and how they pertain to or further the research goals stated in the permit applications and the Steller sea lion Recovery Plan; and

b. An indication of where and when the research results will be published.

3. The Researchers must submit to the Director, Office of Protected Resources, NMFS, 1315 East-West Highway, Room 13705, Silver Spring, MD 20910, all reports, and any papers or publications resulting from the research authorized herein.

4. Inventory Reports

a. In the event of a death **or birth** of a Steller sea lion held under the authority of this permit, an updated Marine Mammal Data Sheet (MMDS) must be submitted to the Office of Protected Resources within 30 days. For deaths, a copy of the necropsy report, including histopathology results must be submitted when available.

b. Upon request of the Office Director, the ASLC must review and verify the accuracy of its Marine Mammal Inventory. All reports must be submitted to the Office Director at the address indicated above, in the requested format.

E. Photography and Filming Conditions [50 CFR 216.36(b)]

1. The Permit Holder and Researchers working under this permit must obtain prior approval by the NMFS Permits, Conservation and Education Division for the following:

a. Commercial use of photographs, video, and/or film that were taken to achieve the research objectives; and

b. All activities not essential to achieving the research objectives (*e.g.* still photography, videotaping, motion picture film making). Such activities must not influence the conduct of research in any way.

2. The Permit Holder and Researchers are hereby notified that failure to obtain NMFS approval prior to conducting or facilitating such activities will be considered a violation of the permit. The Permit Holder and Researchers must agree, upon request by NMFS, to make space available on the vessel or aircraft for a NMFS observer during any trips where activities identified in E.1.b may be conducted.

3. Any commercial/documentary film approved for use must include a credit, acknowledgment, or caption indicating that the research was conducted under **NMFS Permit No. 881-1745-02**.

F. General Conditions [50 CFR 216.35]

1. The Permit Holder is ultimately responsible for all activities of any individual who is operating under the authority of the permit. The Principal Investigator (PI) shares this responsibility.

2. The qualifications and experience of the personnel participating in the research under this permit must be commensurate with their assigned responsibilities. The PI or a Co-investigator (CI) must be on-site during any research conducted under this permit. Research Assistants must be under the direct and on-site supervision of the PI or a CI.

3. CIs are individuals identified by the Permit Holder or PI, and approved by the NMFS, who are qualified to conduct research activities authorized by the permit without the on-site supervision of the Permit Holder or PI.

   CI designation: The Permit Holder or PI must submit a CI designation request to the Chief, Permits, Conservation and Education Division, Office of Protected Resources. The request must include the individual's resume, curriculum vitae, or bio-sketch, and duty(ies) to be performed. Approval by NMFS is based on the individual's qualifications to perform the requested activity(ies). To expedite this process, the letter and CV may be submitted by facsimile (301/713-0376) followed by mail confirmation.

4. Research Assistants (RAs) are individuals who work under the direct on-site supervision of the PI or CI(s).

5. Persons who require state or Federal licenses to conduct activities authorized under the permit must be duly licensed when undertaking such activities.

6. The Permit Holder, PI, and CI(s) cannot transfer or assign the permit to any other person. The PI may request authorization to add a person to this permit, but the PI cannot accept any direct or indirect compensation from the individual, in exchange for doing so.

7. The Holder, PI, and CI(s) operating under the authority of this permit must possess a copy of **Permit No. 881-1745-02** when engaged in a permitted activity,

and as applicable, when a marine mammal is in transit incidental to such activity, and whenever the Permit Holder, PI, or CI(s) are in possession of marine mammals or marine mammal parts. The Permit Holder, PI, or CI(s) must affix a copy of the permit to any container, package, enclosure, or other means of containment, in which the marine mammals or marine mammal parts are placed for purposes of transit, supervision, or care. Any storage facility repositing marine mammal parts must keep a copy of the permit on file.

8. Inspection: Upon request of NMFS enforcement agents or personnel designated by the Director, Office of Protected Resources, the Permit Holder, PI and/or CI(s) must make available for inspection: records, facilities, marine mammals, marine mammal parts, copies of photographs, motion picture films, and/or video tapes, and any other information related to any inspection of records associated with this permit.

9. Permit Amendments: **For the duration of the permit, the Permit Holder/Principal Investigator may not request changes to the permit related to: the objectives or purposes of the permitted activities; the species or number of animals taken; or the location, time, or manner of taking or importing protected species.**

10. NMFS shall be the sole arbiter of whether a given activity is within the scope and bounds of the authorization granted in this permit. The Permit Holder is on notice that if the Permit Holder is unsure whether an activity is within the scope of the Permit, the Permit Holder should contact the NMFS Permits, Conservation and Education Division for verification before conducting the activity. Failure to verify, where NMFS subsequently determines that the activity was outside the scope of the permit, may be used as evidence of a violation of the permit, the MMPA, and the ESA in any enforcement actions.

11. Any falsification of information pertaining to the permitted activities, including information provided to NOAA personnel, will be considered a violation of the permit.

12. The Permit Holder and PI, in signing this permit and reading and understanding the **Terms and Conditions**, have accepted and will comply with the provisions of this permit, applicable Regulations (50 CFR Parts 216 and 222), the MMPA, and the ESA.

G. Penalties and Permit Sanctions (50 CFR 216.40)

1 Any person who violates any provision of this permit is subject to civil and criminal penalties, permit sanctions, and forfeiture as authorized under the MMPA, ESA, or 15 CFR part 904 [Civil Procedures].

2. All permits are subject to suspension, revocation, modification, and denial in accordance with the provisions of subpart D [Permit Sanctions and Denials] of 15 CFR part 904.

JUL 17 2007

James H. Lecky
Director
Office of Protected Resources
National Marine Fisheries Service

Date

8/23/07

Tylan Schrock
Responsible Party
Alaska SeaLife Center

Date

8/24/07

Dr. Shannon Atkinson
Principal Investigator
Alaska SeaLife Center

Date

FILE COPY

Attachment 1: 50 CFR Section 216.37 Marine mammal parts

With respect to marine mammal parts acquired by take or import authorized under a permit issued under this subpart:

(a) Marine mammal parts are transferrable if:

(1) The person transferring the part receives no remuneration of any kind for the marine mammal part;

(2) The person receiving the marine mammal part is:

(i) An employee of NMFS, the U.S. Fish and Wildlife Service, or any other governmental agency with conservation and management responsibilities, who receives the part in the course of their official duties;

(ii) A holder of a special exception permit which authorizes the take, import, or other activity involving the possession of a marine mammal part of the same species as the subject part; or

(iii) In the case of marine mammal parts from a species that is not depleted, endangered or threatened, a person who is authorized under section 112(c) of the MMPA and subpart C of this part to take or import marine mammals or marine mammal parts;

(iv) Any other person specifically authorized by the Regional Director, consistent with the requirements of paragraphs (a)(1) and (a)(3) through (6) of this section.

(3) The marine mammal part is transferred for the purpose of scientific research, maintenance in a properly curated, professionally accredited scientific collection, or education, provided that, for transfers for educational purposes, the recipient is a museum, educational institution or equivalent that will ensure that the part is available to the public as part of an educational program;

(4) A unique number assigned by the permit holder is marked on or affixed to the marine mammal part or container;

(5) The person receiving the marine mammal part agrees that, as a condition of receipt, subsequent transfers may only occur subject to the provisions of paragraph (a) of this section; and

(6) Within 30 days after the transfer, the person transferring the marine mammal part notifies the Regional Director of the transfer, including a description of the part, the person to whom the part was transferred, the purpose of the transfer, certification that the recipient has agreed to comply with the requirements of paragraph (a) of this section for subsequent transfers, and, if applicable, the recipient's permit number.

(b) Marine mammal parts may be loaned to another person for a purpose described in paragraph (a)(3) of this section and without the agreement and notification required under paragraphs (a)(5) and (6) of this section, if:

(1) A record of the loan is maintained; and

(2) The loan is for not more than one year. Loans for a period greater than 12 months, including loan extensions or renewals, require notification of the Regional Director under paragraph (a)(6).

(c) Unless other disposition is specified in the permit, a holder of a special exception permit may retain marine mammal parts not destroyed or otherwise disposed of during or after a scientific research or enhancement activity, if such marine mammal parts are:

(1) Maintained as part of a properly curated, professionally accredited collection; or

(2) Made available for purposes of scientific research or enhancement at the request of the Office Director.

(d) Marine mammal parts may be exported and subsequently reimported by a permit holder or subsequent authorized recipient, for the purpose of scientific research, maintenance in a properly curated, professionally accredited scientific collection, or education, provided that:

(1) The permit holder or other person receives no remuneration for the marine mammal part;

(2) A unique number assigned by the permit holder is marked on or affixed to the marine mammal specimen or container;

(3) The marine mammal part is exported or reimported in compliance with all applicable domestic and foreign laws;

(4) If exported or reimported for educational purposes, the recipient is a museum, educational institution, or equivalent that will ensure that the part is available to the public as part of an educational program; and

(5) Special reports are submitted within 30 days after both export and reimport as required by the Office Director under '216.38.

Appendix A: Format for submitting annual and final reports for Marine Mammal Permits

I. Annual Reports

Each year the Permit is valid, the Permit Holder must submit an annual report, describing the specific activities that have been conducted. The annual report must be both tabular and narrative in nature. Although Annual Reports are primarily used by the Permits, Conservation and Education Division to ensure compliance of research with the terms and conditions of the Permit, they are also used for assessing the cumulative effects of permitted research on a given species, and are sent to the same team of reviewers, including the Marine Mammal Commission, as the application. Thus, it is important for Annual Reports to be complete and self-contained documents that concisely summarize the takes for the previous year, as well as the effects of the research on the animals. Annual reports shall, therefore, contain the following information in the order listed.

INTRODUCTION

State the objective(s) of the study for which the Permit was used, and the hypotheses being tested. It is not necessary to restate the background information provided in your permit application in support of the study.

METHODS

It is not necessary to describe in full detail all the take activities, but they should be briefly discussed, particularly if there were things that didn't work as planned. Also discuss any measures you think could be taken in the future to further minimize potential adverse effects on individual animals and the population/stock/species. It is important to give the exact dates and locations (with latitude and longitude where possible) of each activity. If vessel or aerial surveys were part of the permitted research, include a map of the survey transect(s). Also discuss the number of personnel involved in the takes and explain the functions of the various individuals.

RESULTS

Do not submit raw data. In the narrative portion of this section, summarize the number of takes by activity for each species, age class, sex, and reproductive condition. Describe, in detail, the reaction of animals to the various take activities. For example, if individual whales were closely approached for photo-identification, describe the reactions of individual whales. If a large pinniped rookery was surveyed from an airplane, describe the general effect on the majority of animals. If individual animals were captured and subjected to intrusive procedures, describe the reaction of the individual animal, including any data collected on vital rates (heart rate, respiration) or other indicators of stress. If there was no discernable response, that should also be noted. Accidental mortalities, whether or not covered by special reporting conditions in the permit, must also be noted in this report. Also discuss measures that were taken by researchers to minimize disturbance, stress, pain, and suffering.

In the tabular portion of this section, **do not submit raw data**. Provide a table (or tables, if needed for clarity) that clearly demonstrates the takes by activity, date, and location for each species by age, sex, and reproductive condition. Where individual animals were subjected to more than one type of take, list all activities that were performed per animal. Make certain you include the number of times a given activity was performed on individual animals. For example, if an animal was captured, tagged, and had tissue samples taken, and was then re-captured at a later date for repeat tissue sampling, make certain this is reflected in the table(s). If tissue samples were shared with cooperators and/or other non-permitted researchers, they should be identified.

CONCLUSION

Briefly explain how the results of this reporting period demonstrate the accomplishments of your research goal and, if applicable, how such goals pertain to the species conservation plan. Describe the activities planned for the forthcoming year, and steps that have been and will be taken to coordinate the research activities with the NMFS Regional Administrator(s) and other researchers. Finally, describe when or if any results have been published or otherwise made public during the reporting period, including technical reports and memorandum, conference presentations, etc. Send copies of all reports, publications, etc., resulting from the research conducted under the permit to the NMFS Permits, Conservation and Education Division. If any non-research related used of images (including still photographs and video footage) was authorized during the reporting period, remember to submit copies of these, if the copies were not previously provided, to the Permits Division as well.

II. Final Reports

Researchers must submit a final report within 180 days after completion of the research, or expiration date of the permit, whichever occurs first. As with the Annual Reports, the Final Report is used to ensure compliance with the terms and conditions of the permit, as well as the evaluate eligibility for future permits. Final Reports are distributed to the same reviewers, including the Marine Mammal Commission, as the Annual Reports. The Final Report must follow the format outlined below.

INTRODUCTION

Same as for Annual Reports

METHODS

Same as for Annual Reports

RESULTS

Because the Final Report serves as the Annual Report for the last year of the permit, it is important in this section to clearly and separately enumerate both the takes for the last year of the permit and the cumulative takes over the duration of the permit, as described above for Annual Reports.

CONCLUSION

As with Annual Reports, briefly explain how the results of this reporting period demonstrate the accomplishments of your research goal and, if applicable, how such goals pertain to the species conservation plan. Also explain how the results over the duration of the permit demonstrate these things. Indicate where and when the research results will most likely be published. Don't forget to send a copy of any publications, including technical reports, to the Permits Division to complete your permit file. Although they are not considered peer-reviewed publications, copies of any conference abstracts or presentations related to activities authorized in the permit should also be provide.

MARINE MAMMAL DATA SHEET

Date _____
SHT# _____

OMB No. 0648-0084, exp 9/30/09
HN: SN:
For NMFS Use Only

I. Holder-Specific:

Holder: _____ Facility: _____
Person or other Entity With Custody of the Marine Mammal — Name of Facility (if different from Holder)

Date assumed custody: __ __ – __ __ – __ __ Date arrived at Facility: __ __ – __ __ – __ __

City/State/Zip (include Country for foreign facilities): _____
Location of Facility

Animal Identification No. _____ Animal Name: _____
(assigned by holder) — (assigned by holder)

Captive Purpose(s): ☐ Public display ☐ Scientific research ☐ Enhancement

II. Animal-Specific:

Species: _____ Sex: ☐ Male ☐ Female ☐ Unknown
Common Name - Scientific Name

Population Name: _____

NOAA Identification No. _____ (☐ check here if unknown or not yet assigned)

Date of birth: __ __ – __ __ – __ __ ☐ Actual ☐ Estimated

Captive Origin (check only one): ☐ Captive born ☐ Wild capture ☐ Beach/stranded ☐ Unknown

Date of original captivity: __ __ – __ __ – __ __ (**ATTACH** documentation if before December 21, 1972.)

III. Source: Indicate how and from whom custody of this animal was obtained, including change in facility

☐ Captive birth

☐ Transfer/ Transport — Name of Previous Holder: _____
Name of Previous Facility: _____

☐ Import Permit No. _____ or ☐ For medical treatment otherwise unavailable (16 U.S.C. 1379(h)(2))

☐ Beach/Stranded (Please see notes)

☐ Wild Capture Permit No. _____ Collector: _____

Location: _____ / _____ _____
Latitude/Longitude — Geographical Name

IV. Disposition: The date and reason this animal left your custody or changed facility

☐ Transfer/ Transport Date: __ __ – __ __ – __ __ Recipient: _____
Facility: _____

☐ Death Date Cause: ☐ Premature/still birth ☐ Euthanasia ☐ Other

If "Euthanasia," indicate reason: ☐ life-threatening condition involving pain/suffering or ☐ other

If "Other Cause," describe briefly _____

☐ Release Date Permit No. _____ or ☐ Unauthorized release/escape
(reintroduction)

Location _____ _____
Geographic Location — Tag number or description of other identifying markings