



State of California – Department of Fish and Wildlife
2018 SCIENTIFIC COLLECTING PERMIT APPLICATION
DFW 1379 (REV. 10/31/17) Page 1

DocID: D-0026557558-3

Trans: 20109607 06/19/18 16:23

Outlet: 310001-001 Fee: \$324.75

2018 Scientific Collecting Permit

See permit for validity dates.

CDW
Received
SEP 21 2018

DEPARTMENT USE ONLY

FROM <u>6/19/19</u>	THIS PERMIT IS VALID: THROUGH <u>6/19/22</u>	PERMANENT ID NUMBER SC- <u>13979</u>	# OF PI's	SC- <u>13979</u>
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PERMIT, AMENDMENTS AND REPORT OF SPECIMENS CAPTURED OR SALVAGED MUST BE IN IMMEDIATE POSSESSION WHILE COLLECTING. Collecting is not allowed under the authority of a sport fishing license.

NEW RENEWAL - When renewing, Report of Specimens Collected or Salvaged (DFW 1379a) **MUST BE ATTACHED** or application will be returned.

FEES LISTED BELOW INCLUDE A NONREFUNDABLE APPLICATION FEE AND PERMIT FEE CHECK ALL BOXES THAT APPLY:

- INDIVIDUAL OR ENTITY \$108.92 APPLICATION FEE (SUBMIT NOW) AND \$324.75 PERMIT FEE *(SUBMIT WHEN NOTIFIED)
 PI \$108.92 APPLICATION FEE (PER PI) (SUBMIT NOW) AND \$324.75 PERMIT FEE (PER PI)*(SUBMIT WHEN NOTIFIED)
 STUDENT - \$27.04 APPLICATION FEE (SUBMIT NOW) AND \$54.59 PERMIT FEE *(SUBMIT WHEN NOTIFIED)

*DO NOT SUBMIT THE PERMIT FEE NOW - You will be required to submit the permit fee if the permit is approved.

(Fees include a nonrefundable three percent (3%) application fee, not to exceed \$7.50 per item) (Section 700.4, Title 14, California Code of Regulations (CCR)).

BEFORE COMPLETING APPLICATION: Read instructions, permit descriptions, Standard Conditions, and Numbered Authorizations. Complete all appropriate sections of the application (sponsor's section may be required). Type or print clearly.

SECTION 1 - INDIVIDUAL PERMITTEE INFORMATION - Complete only if applying as an individual OR student. Provide the following information and attach a statement of qualifications or resume outlining experience with wildlife and activity requested in Section 3.

FIRST NAME	M.I.	LAST NAME		GO ID NUMBER (from ALDS issued license)	
AFFILIATION		<input type="checkbox"/> Check here if you want future correspondence mailed to your affiliation		TITLE	
PERMITTEE'S MAILING ADDRESS				DAY TELEPHONE	FAX NUMBER
CITY	STATE	ZIP CODE	EMAIL ADDRESS		
HAIR COLOR	EYE COLOR	HEIGHT	WEIGHT	SEX <input type="checkbox"/> MALE <input type="checkbox"/> FEMALE	DATE OF BIRTH
AFFILIATION'S MAILING ADDRESS		CITY		STATE	ZIP CODE

SECTION 2 – ENTITY PERMITTEE – Complete only if applying as a qualified entity

Entities include California certified small businesses, aquariums or zoos accredited by the Association of Zoos and Aquariums, museums, California Special Districts, public agencies, non-profit non-governmental organizations, accredited colleges or universities and instructors at accredited colleges or universities. Proof of such status must be provided with a new application. An additional permit fee is required for each PI when the permit is ready to be issued.

ENTITY'S NAME Humboldt State University's Vertebrate Museum	DAY TELEPHONE (707) 826-4872	FAX NUMBER	
ENTITY'S MAILING ADDRESS 1 Harpst Street	CITY Arcata	STATE CA	ZIP CODE 95521-8222

PRINCIPAL SCIENTIFIC INVESTIGATOR (PI) INFORMATION - Provide the following information and attach a statement of qualifications or resume for the full-time permanent employee responsible for providing adequate supervision and training of the employees and volunteers listed below. **WHAT IS THE TOTAL NUMBER OF PIs PROPOSED FOR THIS SCP?** 1

If you have more than one PI proposed under the entity permit, complete and attach page 5 (make copies if needed). The entity shall submit a non-refundable application fee for each PI.

(1) FIRST NAME Melissa	M.I. T	LAST NAME Hawkins	TITLE Assistant Professor/Curato		
HAIR COLOR BRW	EYE COLOR GRN	HEIGHT 5'7"	WEIGHT 150	SEX <input type="checkbox"/> MALE <input checked="" type="checkbox"/> FEMALE	DATE OF BIRTH 11/13/1985
GO ID NUMBER (from ALDS issued license) <u>1063416753</u>	DAY TELEPHONE (707) 826-5559			EMAIL ADDRESS mtr57@humboldt.edu	

LIST OF AUTHORIZED INDIVIDUALS: List ALL employees or volunteers that will be working under the Principal Scientific Investigator named above. Attach a separate list if needed. An amendment form and fee must be submitted, approved, and returned to you by the Department before you can add or remove employees and volunteers from this list.

FIRST NAME	LAST NAME	DRIVER'S LICENSE OR DMV ID NUMBER	STATE
Sharyn	Marks	A1699655	CA
Nicholas	Kerhoulas	B5317794	CA

FOR DEPARTMENT OF FISH AND WILDLIFE USE ONLY

REVIEWED BY/DATE <u>SPD</u>	APPLICATION FEE TRANSACTION # <u>921-2018</u>	PERMIT FEE TRANSACTION #	# APPLICATIONS	LRB ROUTED TO/DATE 1. 2. 3.
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State of California – Department of Fish and Wildlife
2018 SCIENTIFIC COLLECTING PERMIT APPLICATION
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Rec'd
SEP 21 2018
BY
LRB

FIRST NAME	M.I.	LAST NAME OR ENTITY NAME (IF QUALIFIED ENTITY) HSU Vertebrate Museum/Hawkins	PERMANENT ID NUMBER SC-
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SECTION 3 – PERMIT INFORMATION

USE OF PERMIT: CHECK ALL APPLICABLE BOXES

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> Biological Consulting (generally, catch and release only) | <input checked="" type="checkbox"/> Research | <input type="checkbox"/> Museum Collection | <input type="checkbox"/> Biological Collection Service |
| <input type="checkbox"/> State, Federal or Other Agency Biologist | <input checked="" type="checkbox"/> Education | <input type="checkbox"/> Other- | |

Wildlife and Activity: Reminder - You must provide justification in Section 5 for each wildlife taxa and activity checked here. Check the type of wildlife taxa to be taken AND circle the type of activity requested: S=sacrifice; R=capture and release; C=take into captivity; SL=salvage; M=mark.

<input checked="" type="checkbox"/> MAMMALS	Wildlife Branch
<input type="checkbox"/> BIRDS* Other	Authorizations and
<input checked="" type="checkbox"/> REPTILES	Conditions are
<input checked="" type="checkbox"/> AMPHIBIANS	attached.

<input checked="" type="checkbox"/> S	<input checked="" type="checkbox"/> R	<input checked="" type="checkbox"/> C	<input checked="" type="checkbox"/> S	<input checked="" type="checkbox"/> L	<input checked="" type="checkbox"/> M	<input type="checkbox"/> FRESHWATER FISHES	S R C M	
<input type="checkbox"/> S	<input type="checkbox"/> R	<input type="checkbox"/> C	<input type="checkbox"/> S	<input type="checkbox"/> L	<input type="checkbox"/> M	<input type="checkbox"/> FRESHWATER INVERTEBRATES	S R C M	
<input checked="" type="checkbox"/> S	<input checked="" type="checkbox"/> R	<input checked="" type="checkbox"/> C	<input checked="" type="checkbox"/> S	<input checked="" type="checkbox"/> L	<input checked="" type="checkbox"/> M	<input type="checkbox"/> ANADROMOUS FISHES	S R C M	
<input checked="" type="checkbox"/> S	<input checked="" type="checkbox"/> R	<input checked="" type="checkbox"/> C	<input checked="" type="checkbox"/> S	<input checked="" type="checkbox"/> L	<input checked="" type="checkbox"/> M	<input type="checkbox"/> MARINE FISHES	S R C S L M	
<input type="checkbox"/> VERNAL POOL/TERRESTRIAL INVERTEBRATES	<input type="checkbox"/> S	<input type="checkbox"/> R	<input type="checkbox"/> C	<input type="checkbox"/> S	<input type="checkbox"/> L	<input type="checkbox"/> M	<input type="checkbox"/> MARINE AQUATIC PLANTS	S C S L
"See Standard Condition "K"						<input type="checkbox"/> MARINE/TIDAL INVERTEBRATES	S R C S L M	

REVIEWED

By Hannah Hughes at 11:13 am, Feb 20, 2019

YES NO (If yes, list the permittees below. Attach separate list if needed.)

FIRST NAME	LAST NAME	SCIN NUMBER
		SC-
		SC-
		SC-

SECTION 4 – SPONSOR INFORMATION

Students, teachers and individuals collecting on behalf of an organization must all have one member of the organization sponsor them. Sponsors must fully complete this section of the application. Students must have one faculty member with affiliation to the student's college or university sponsor the student. Elementary and secondary school teachers must be sponsored by their principal. In some other cases, the Department may review an application and determine that a sponsor is needed and will request this information directly from the applicant or organization.

SPONSOR'S FIRST NAME Bruce	M.I. O'Gara	DAY TELEPHONE (707) 826-3246	
TITLE Department Chair	ORGANIZATION HSU	EMAIL ADDRESS bao@humboldt.edu	
MAILING ADDRESS 1 Harpst St	CITY Arcata	STATE CA	ZIP CODE 95521-8222
SPONSOR'S CERTIFICATION/SIGNATURE: I verify the take described in this application is required by this organization			DATE 9-19-18

APPLICATION CERTIFICATION

BY CHECKING ALL BOXES, I HEREBY DECLARE THAT THE FOLLOWING INFORMATION IS PROVIDED IN THE JUSTIFICATION SECTION OF THIS APPLICATION

- | | | | |
|---|--|--|--|
| <input type="checkbox"/> Purpose | <input type="checkbox"/> Species + Numbers to be collected | <input type="checkbox"/> Locations + Timeframes for Collecting | <input type="checkbox"/> Species Disposition |
| <input type="checkbox"/> Methods/Activity | <input type="checkbox"/> Literature Cited | <input type="checkbox"/> Attached Federal/State Permit(s) (Applicable/Not Applicable – Circle appropriate one) | |

I understand that if I fail to provide all information, circle items or check the boxes, my permit may be denied. I certify that I have read, understand, and agree to abide by, all conditions of this permit and attachments, the applicable provisions of the Fish and Game Code, and the regulations promulgated thereto (Title 14, Section 650). I certify that I am not currently under any Fish and Wildlife license or permit revocation or suspension, and that there are no other legal or administrative proceedings pending that would disqualify me from obtaining this permit. I agree that if I make any false statement as to any fact required as a prerequisite to the issuance of this permit, the permit is void and will be surrendered where purchased, and I understand that I may be subject to prosecution pursuant to FGC Section 1054 or to other administrative actions pursuant to Section 746, Title 14, of the CCR.

APPLICANT SIGNATURE

X

DATE
09/19/2018



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FIRST NAME	M.I.	LAST NAME OR ENTITY NAME (If qualified entity) HSU Vertebrate Museum/Hawkins	PERMANENT ID NUMBER SC-
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SECTION 5 – PERMIT JUSTIFICATION – Required for ALL activities.

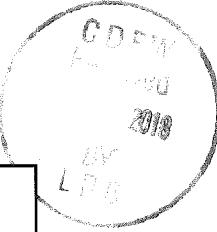
IS A FEDERAL OR ADDITIONAL STATE PERMIT OR MOU REQUIRED? YES (If yes, attach copies.) NO

PROVIDE START AND END DATE AND/OR EXPLAIN SEASONAL REQUIREMENTS FOR YOUR WORK.

START 01-2019	END 01-2022
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REMINDER - You must provide justification here for each wildlife taxa and activity circled in Section 3. Use the space below to summarize your proposed research. Be sure to include each of the following headers in **bold/underlined** and as follows: **purpose** (include scientific or educational need for the requested activity); **methods/techniques** (include equipment/gear) and the reason for using them; **species and numbers to be collected**, if known (include scientific and common names); **collection locations** (include counties and specific locales and reasons for choosing them); and **disposition**, which describes the organism's fate (i.e. sacrifice, catch and release, salvage, captivity). If you propose to collect in a Marine Protected Area (MPA), give the proper name of the MPA and explain (1) Why collection is required within an MPA and provide justification for why it cannot be conducted outside of an MPA; (2) Why the proposed methods are appropriate for this activity; and (3) Describe the frequency of the proposed activity per collecting area. If you are working in areas where special status species (listed, fully protected, or species of special concern) are expected to be incidentally captured, explain why collection is required in these areas, and describe how your methods/techniques and equipment/gear will avoid or minimize take of non-target sensitive species. If requesting marking/tagging, captivity, or sacrifice, specific details as described above must be included for each species and activity requested. Attach additional pages if needed. Attach complete copies of appropriate federal permits and additional State permits (e.g., Memorandum of Understanding) to avoid delay of processing.

APPENDIX 1. SPECIES LIST FOR MAMMALS



***NOTE* ALL SHADED SPECIES REQUESTS FOR SCAT SAMPLES ONLY**

CA Mammal Species of Special Concern = MSSC.

See the CDFW Special Animals List for MSSC subspecies.

DIDELPHIDAE

Didelphis virginiana

Virginia Opossum

Take of MSSC and other special status mammal taxa (noted below) is not authorized and requires additional written approval.

SORICIDAE

Sorex vagrans

(*Shrews*)

Notiosorex crawfordi

Vagrant Shrew

Sorex bendirii

Desert Shrew

Sorex lyelli

Marsh Shrew

Sorex merriami

Mt. Lyell Shrew

MSSC

Sorex monticolus

Merriam's Shrew

Sorex ornatus

Montane Shrew

MSSC subspecies, and excluding Buena Vista Lake shrew (*S.o. relictus*)

Sorex palustris

Ornate Shrew

Sorex preblei

Water Shrew

Sorex sonomae

Preble's Shrew

Sorex tenellus

Fog Shrew

Sorex trowbridgii

Inyo Shrew

Trowbridge's Shrew

TALPIDAE

Neurotrichus gibbsii

(*Moles*)

Shrew-mole

Scapanus latimanus

Broad-footed Mole

Scapanus orarius

Coast Mole

Scapanus townsendii

Townsend's Mole

LAGOMORPHA

OCHOTONIDAE

Ochotona princeps

(Rabbits, Hares and Pika)

(*Pikas*)

American Pika

See Wildlife Branch
SCP Condition #2.

LEPORIDAE

Sylvilagus nuttallii

(*Rabbits and Hares*)

Nuttall's Cottontail

Lepus americanus

Snowshoe Hare

Lepus californicus

Black-tailed Jackrabbit

MSSC subspecies

Lepus townsendii

White-tailed Jackrabbit

Oryctolagus cuniculus

European Rabbit

Sylvilagus audubonii

Audubon's Cottontail

Sylvilagus bachmani

Brush Rabbit

Excluding listed
subspecies Riparian brush
rabbit (*S.b. riparius*)

APPENDIX 1. SPECIES LIST FOR MAMMALS



APLODONTIIDAE

Aplodontia rufa humboldtiana

(*Mountain Beaver*)

Humboldt Mountain Beaver

← MSSC

SCIURIDAE

Ammospermophilus leucurus

(*Squirrels, Chipmunks and Marmots*)

White-tailed Antelope Ground Squirrel

Ammospermophilus nelsoni

Nelson's Antelope Ground Squirrel

Callospermophilus lateralis

Golden-mantled Ground Squirrel

Glaucomys oregonensis

Humboldt's Flying Squirrel

Glaucomys oregonensis californicus

San Bernardino Flying Squirrel

Marmota flaviventris

Yellow-bellied Marmot

CESA-listed
threatened.
See Wildlife
Branch
Condition #1

Otospermophilus beecheyi

California Ground Squirrel

Otospermophilus variegatus

Rock Squirrel

Sciurus carolinensis

Eastern Gray Squirrel

Sciurus griseus

Western Gray Squirrel

Sciurus niger

Eastern Fox Squirrel

Neotamias alpinus

Alpine Chipmunk

← MSSC

Tamias amoenus

Yellow-pine Chipmunk

Tamias merriami

Merriam's Chipmunk

Tamias minimus

Least Chipmunk

Tamias obscurus

Chaparral Chipmunk

Tamias ochrogenys

Redwood Chipmunk

Tamias panamintinus

Panamint Chipmunk

Tamias quadrimaculatus

Long-eared Chipmunk

Tamias senex

Shadow Chipmunk

Tamias siskiyou

Siskiyou Chipmunk

Tamias sonomae

Sonoma Chipmunk

Tamias speciosus

Lodgepole Chipmunk

← MSSC

Tamias umbrinus

Uinta Chipmunk

Tamiasciurus douglasii

Douglas' Squirrel

Urocitellus beldingi

Belding's Ground Squirrel

Urocitellus mollis

Piute Ground Squirrel

Xerospermophilus mohavensis

Mohave Ground Squirrel

CESA-listed
threatened

Xerospermophilus tereticaudus

Round-tailed Ground Squirrel

GEOMYIDAE

Thomomys bottae

(*Pocket Gophers*)

MSSC = Palm Springs
round-tailed ground
squirrel (*X.t. chlorus*)

Thomomys mazama

Botta's Pocket Gopher

Thomomys monticola

Mazama Pocket Gopher

Thomomys talpoides

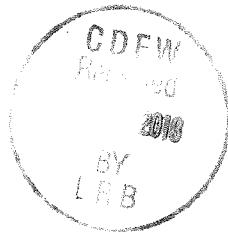
Mountain Pocket Gopher

Thomomys townsendii

Northern Pocket Gopher

Townsend's Pocket Gopher

APPENDIX 1. SPECIES LIST FOR MAMMALS



HETEROMYIDAE

<i>Chaetodipus baileyi</i>	Bailey's Pocket Mouse
<i>Chaetodipus californicus</i>	California Pocket Mouse
<i>Chaetodipus formosus</i>	Long-tailed Pocket Mouse
<i>Chaetodipus penicillatus</i>	Desert Pocket Mouse
<i>Chaetodipus spinatus</i>	Spiny Pocket Mouse
<i>Microdipodops megacephalus</i>	Dark Kangaroo Mouse
<i>Microdipodops pallidus</i>	Pale Kangaroo Mouse
<i>Perognathus alticolus</i>	White-eared Pocket Mouse
<i>Perognathus longimembris</i>	Little Pocket Mouse
<i>Perognathus parvus</i>	Great Basin Pocket Mouse
<i>Salinas Pocket Mouse</i> (<i>Perognathus inornatus</i>)	San Joaquin Pocket Mouse

(Pocket Mice and Kangaroo Rats)

Bailey's Pocket Mouse
California Pocket Mouse
Long-tailed Pocket Mouse
Desert Pocket Mouse
Spiny Pocket Mouse
Dark Kangaroo Mouse
Pale Kangaroo Mouse
White-eared Pocket Mouse
Little Pocket Mouse
Great Basin Pocket Mouse
San Joaquin Pocket Mouse

← MSSC

← MSSC

CASTORIDAE

<i>Castor canadensis</i>	(Beavers) American Beaver	← See Wildlife Branch SCP Condition #2.
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CRICETIDAE

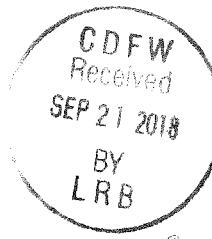
<i>Arborimus albipes</i>	(Mice, Rats and Voles) White-footed Vole	← MSSC
<i>Arborimus pomoe</i>	Sonoma Red Tree Vole	← MSSC
<i>Lemmiscus curtatus</i>	Sagebrush Vole	
<i>Microtus californicus</i>	California Vole	← MSSC subspecies, and excluding listed Amargosa vole (<i>M.c. scirpensis</i>)
<i>Microtus longicaudus</i>	Long-tailed Vole	
<i>Microtus montanus</i>	Montane Vole	
<i>Microtus oregoni</i>	Creeping Vole	
<i>Microtus townsendii</i>	Townsend's Vole	
<i>Mus musculus</i>	House Mouse	
<i>Myodes californicus</i>	California Red-backed Vole	
<i>Neotoma albigula</i>	White-throated Woodrat	
<i>Neotoma bryanti</i>	Bryant's Woodrat	
<i>Neotoma cinerea</i>	Bushy-tailed Woodrat	
<i>Neotoma fuscipes</i>	Dusky-footed Woodrat	← MSSC subspecies, and excluding listed Riparian woodrat (<i>N.f. riparia</i>)

<i>Neotoma lepida</i>	Desert Woodrat	← MSSC subspecies, and excluding listed Riparian woodrat (<i>N.f. riparia</i>)
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<i>Neotoma macrotis</i>	Big-eared Woodrat
<i>Ondatra zibethicus</i>	Common Muskrat
<i>Onychomys leucogaster</i>	Northern Grasshopper Mouse
<i>Onychomys torridus</i>	Southern Grasshopper Mouse
<i>Peromyscus boylii</i>	Brush Mouse
<i>Peromyscus californicus</i>	California Mouse

← MSSC subspecies =
(*O.t. ramona* and
O.t. tularensis)

APPENDIX 1. SPECIES LIST FOR MAMMALS



<i>Peromyscus crinitus</i>	Canyon Mouse
<i>Peromyscus eremicus</i>	Cactus Mouse
<i>Peromyscus fraterculus</i>	Baja Mouse
<i>Peromyscus maniculatus</i>	Deer Mouse
<i>Peromyscus truei</i>	Pinyon Mouse
<i>Phenacomys intermedius</i>	Heather Vole
<i>Rattus norvegicus</i>	Norway Rat
<i>Rattus rattus</i>	Black Rat
<i>Reithrodontomys megalotis</i>	Western Harvest Mouse
<i>Reithrodontomys raviventris</i>	Salt-marsh Harvest Mouse
<i>Sigmodon arizonae</i>	Arizona Cotton Rat
<i>Sigmodon hispidus</i>	Hispid Cotton Rat
DIPODIDAE	
<i>Zapus princeps</i>	(Jumping Mice)
<i>Zapus trinotatus</i>	Western Jumping Mouse
	Pacific Jumping Mouse
ERETHIZONTIDAE	
<i>Erethizon dorsatum</i>	(New World Porcupines)
	North American Porcupine
ECHIMYIDAE	
<i>Myocastor coypus</i>	(Myocastorids)
CARNIVORA	
CANIDAE	
<i>Canis familiaris</i>	Nutria
<i>Canis latrans</i>	(Carnivores)
<i>Canis lupus</i>	(Foxes, Wolves and Relatives)
<i>Urocyon cinereoargenteus</i>	Feral Dog
<i>Vulpes macrotis</i>	Coyote
<i>Vulpes vulpes</i>	Gray Wolf
	Gray Fox
	Kit Fox
	Red Fox
PROCYONIDAE	
<i>Bassaris astutus</i>	(Raccoons and Relatives)
<i>Procyon lotor</i>	Ringtail
	Raccoon
MUSTELIDAE	
<i>Gulo gulo</i>	(Weasels and Relatives)
<i>Lontra canadensis</i>	Wolverine
<i>Martes caurina</i>	Northern River Otter
	Marten
excluding CESA-listed endangered subspecies <i>Humboldt marten (M.c. humboldtensis)</i>	
ESA/CESA-listed endangered & Fully Protected	
MSSC subspecies = Colorado River cotton rat (<i>S.a. plenus</i>) & Yuma hispid cotton rat (<i>S.h. eremicus</i>)	
MSSC subspecies = Point Reyes jumping mouse (<i>Z.t. orarius</i>)	
MSSC	
See Wildlife Branch SCP conditions regarding scat transects and carnivores.	
ESA/CESA-listed endangered	
excluding CESA-listed endangered subspecies Sierra Nevada red fox (<i>V.v.necator</i>)	
Fully Protected	
CESA-listed & Fully Protected	

APPENDIX 1. SPECIES LIST FOR MAMMALS

Mustela erminea

Mustela frenata

Neovison vison

Pekania pennanti

Taxidea taxus

MEPHITIDAE

Mephitis mephitis

Spilogale gracilis

URSIDAE

Ursus americanus

FELIDAE

Lynx rufus

Puma concolor

ARTIODACTYLA

Cervus elaphus

Odocoileus hemionus

Ermine

Long-tailed Weasel

American Mink

Fisher

MSSC

American Badger

(Skunks)

Striped Skunk

Western Spotted Skunk

(Bears)

American Black Bear

(Cats and relatives)

Bobcat

Mountain Lion

Mountain lion is a specially protected mammal.
Possession of parts or products thereof is not authorized.

(Deer and relatives)

Elk

Mule Deer

APPENDIX 2. SPECIES LIST FOR AMPHIBIANS AND REPTILES

AMPHIBIA (Amphibians)

CA Amphibian and Reptile Species of Special Concern = ARSSC.

CAUDATA (Salamanders)

See the CDFW Special Animals List for ARSSC subspecies.

CDF
ivec
2010
B

AMBYSTOMATIDAE (Mole Salamanders and Relatives)

Southern Long-toed Salamander *Ambystoma macrodactylum signatum*

Northwestern Salamander *Ambystoma gracile*



DICAMPTODONTIDAE (Giant Salamanders)

Coastal Giant Salamander *Dicamptodon tenebrosus*

RHYACOTRITONIDAE (Torrent Salamanders)

Southern Torrent Salamander *Rhyacotriton variegatus* ← ARSSC

SALAMANDRIDAE (Newts)

California Newt *Taricha torosa* (excluding SSC populations Monterey Co. & south)

Red-bellied Newt *Taricha rivularis* ← ARSSC

Rough-skinned Newt *Taricha granulosa*

Sierra Newt *Taricha sierrae*

PLETHODONTIDAE (Lungless Salamanders)

California Slender Salamander *Batrachoseps attenuatus*

Wandering Salamander *Aneides vagrans*

Dunn's Salamander *Plethodon dunni*

Del Norte Salamander *Plethodon elongatus* ← Watch List

Speckled Black Salamander *Aneides flavipunctatus flavipunctatus* (excluding *A. flavipunctatus niger*, which is a SSC)

Clouded Salamander *Aneides ferreus*

Arboreal Salamander *Aneides lugubris*

Ensatina *Ensatina escholtzii* (excluding *E. e. crocea* and *E. e. klauberi*)

ANURA (Frogs)

LEIOPELMATIDAE (Tail-wagging Frogs)

Coastal Tailed Frog *Ascaphus truei* ← ARSSC

SCAPHIOPODIDAE (North American Spadefoots)

Great Basin Spadefoot *Spea intermontana*

Couch's Spadefoot *Scaphiopus couchii* ← ARSSC

APPENDIX 2. SPECIES LIST FOR AMPHIBIANS AND REPTILES

Western Spadefoot *Spea hammondii* ← [ARSSC]



BUFONIDAE (*True Toads*)

Western Toad *Anaxyrus boreas*

Great Plains Toad *Anaxyrus cognatus*

Red-spotted Toad *Anaxyrus punctatus*

Woodhouse's Toad *Anaxyrus woodhousii*

~~Sonoran Desert Toad *Incilius alvarius*~~ ← [ARSSC]

LEPTODACTYLIDAE (*Neotropical Thin-toed Frogs*)

Coqui *Eleutherodactylus coqui*

HYLIDAE (*Treefrogs*)

California Treefrog *Pseudacris cadaverina*

Pacific Treefrog *Pseudacris regilla*

Sierran Treefrog *Pseudacris sierra*

RANIDAE (*True Frogs*)

~~Foothill Yellow-legged Frog *Rana boylii*~~ ←

[CESA candidate]

American Bullfrog *Lithobates catesbeianus*

~~Cascades Frog *Rana cascadae*~~ ←

Northern Red-legged Frog *Rana aurora* ←

[ARSSC]

PIPIDAE (*Tongueless Frogs*)

African Clawed Frog *Xenopus laevis*

REPTILIA (Reptiles)

CRYPTODIRA (Turtles)

CHELYDRIDAE (*Snapping Turtles*)

Snapping Turtle *Chelydra serpentina*

EMYDIDAE (*Box and Basking Turtles*)

← [ARSSC]

Western Pond Turtle *Actinemys marmorata* (request to salvage only)

Painted Turtle *Chrysemys picta*

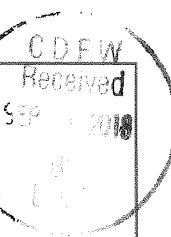
Pond Slider *Trachemys scripta*

CHELONIIDAE (*Sea Turtles*) – request to salvage only. HSU has a Marine Mammal Stranding Network and sometime encounter deceased sea turtles.

Sea turtles are not authorized by this SCP.
See Wildlife Branch SCP Condition #2.

APPENDIX 2. SPECIES LIST FOR AMPHIBIANS AND REPTILES

Hawksbill Sea Turtle *Eretmochelys imbricata*
Olive Ridley Sea Turtle *Lepidochelys olivacea*
Loggerhead Sea Turtle *Caretta caretta*
Green Sea Turtle *Chelonia mydas*



DERMOCHELYIDAE (Leatherback Turtles)-- request to salvage only. HSU has a Marine Mammal Stranding Network and sometime encounter deceased sea turtles.

Leatherback Sea Turtle *Dermochelys coriacea*

TRIONYCHIDAE (Softshell Turtles)

Spiny Softshell *Apalone spinifera*

Sea turtles are not authorized by this SCP. See Wildlife Branch SCP Condition #2.

SQUAMATA (*Lizards and Snakes*)

SCINCIDAE (*Skinks*)

Western Skink *Plestiodon skiltonianus*
Gilbert's Skink *Plestiodon gilberti*

TEIIDAE (*Whiptails and Relatives*)

Tiger Whiptail *Aspidoscelis tigris*

ARSSC subspecies = Coastal whiptail
(*Aspidoscelis tigris stejnegeri*)

ANGUIDAE (*Alligator Lizards and Relatives*)

Southern Alligator Lizard *Elgaria multicarinata*
Northern Alligator Lizard *Elgaria coerulea*

IGUANIDAE (*Iguanids*)

Desert Iguana *Dipsosaurus dorsalis*
Common Chuckwalla *Sauromalus ater*

CROTAPHYTIDAE (*Collared and Leopard Lizards*)

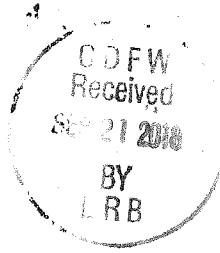
Long-nosed Leopard Lizard *Gambelia wislizenii*
Great Basin Collared Lizard *Crotaphytus bicinctores*

PHRYNOSOMATIDAE (*Spiny Lizards*)

Pygmy Short-horned Lizard *Phrynosoma douglasii*
Desert Horned Lizard *Phrynosoma platyrhinos*
Desert Spiny Lizard *Sceloporus magister*
Mearns' Rock Lizard *Petrosaurus mearnsi*
Ornate Tree Lizard *Urosaurus ornatus*

APPENDIX 2. SPECIES LIST FOR AMPHIBIANS AND REPTILES

Long-tailed Brush Lizard *Urosaurus graciosus*
Common Side-blotched Lizard *Uta stansburiana*
Western Fence Lizard *Sceloporus occidentalis*
Granite Spiny Lizard *Sceloporus orcutti*
Colorado Desert Fringe-toed Lizard *Uma notata* ← ARSSC
Zebra-tailed Lizard *Callisaurus draconoides*
Common Sagebrush Lizard *Sceloporus graciosus*



LEPTOTYPHLOPIDAE (*Slender Blind Snakes*)

Western Threadsnake *Rena humilis*

TYPHLOPIDAE (*Blindsnakes*)

Brahminy Blindsnake *Ramphotyphlops braminus*

BOIDAE (*Boas*)

Northern Rubber Boa *Charina bottae*
Northern Three-lined Boa *Lithanura orcutti*

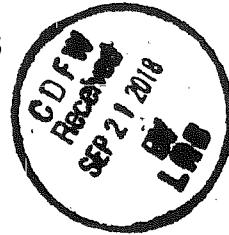
COLUBRIDAE (*Harmless Egg-laying Snakes*)

California Kingsnake *Lampropeltis californiae*
California Mountain Kingsnake *Lampropeltis zonata*, excluding subspecies that are a SSC
Long-nosed Snake *Rhinocheilus lecontei*
Western Groundsnake *Sonora semiannulata*
Western Shovel-nosed Snake *Chionactis occipitalis*
Western Black-headed Snake *Tantilla planiceps*
Sonoran Lyresnake *Trimorphodon lambda*
California Lyresnake *Trimorphodon lyrophantes*
Striped Whipsnake *Coluber taeniatus*
Glossy Snake *Arizona elegans* (excluding *A. e. occidentalis*, which is a SSC)
Smith's Black-headed Snake *Tantilla hobartsmithi*
Spotted Leaf-nosed Snake *Phyllorhynchus decurtatus*
Gophersnake *Pituophis catenifer* (excluding *P. c. pumilius*)
North American Racer *Coluber constrictor*
Coachwhip *Coluber flagellum* (excluding *C. f. ruddocki*, which is a SSC)
Striped Racer *Coluber lateralis*
Western Patch-nosed Snake *Salvadora hexalepis*

DIPSADIDAE (*Rear-fanged Snakes*)

Desert Nightsnake *Hypsirhynchus chlorophaea*

APPENDIX 2. SPECIES LIST FOR AMPHIBIANS AND REPTILES



Coast Nightsnake *Hypsiglena ochrorhyncha*
Common Sharp-tailed Snake *Contia tenuis*
Forest Sharp-tailed Snake *Contia longicauda*
Ring-necked Snake *Diadophis punctatus* (northern California populations only)

NATRICIDAE (*Harmless Live-bearing Snakes*)

Common Gartersnake *Thamnophis sirtalis* (excluding *T.s. tetrataenia* and *T. s. pop. 1*)

Terrestrial Gartersnake *Thamnophis elegans*

Southern Watersnake *Nerodia fasciata*

Common Watersnake *Nerodia sipedon*

Northwestern Gartersnake *Thamnophis ordinoides*

Aquatic Gartersnake *Thamnophis atratus*

CROTALIDAE (*Pitvipers*)

Western Rattlesnake *Crotalus oreganus*

Sidewinder *Crotalus cerastes*

Mohave Rattlesnake *Crotalus scutulatus*

Speckled Rattlesnake *Crotalus mitchellii*

Western Diamond-backed Rattlesnake *Crotalus atrox*

State of California – Department of Fish and Wildlife
2018 SCIENTIFIC COLLECTING PERMIT APPLICATION
DFW 1379 (REV. 10/31/17) Page 4

CDFW
Received
SEP 21 2018

FIRST NAME	M.I.	LAST NAME OR ENTITY NAME (If qualified entity) HSU Vertebrate Museum/Hawkins	PERMANENT ID NUMBER SC-
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FOR DEPARTMENT OF FISH AND WILDLIFE USE ONLY

 PAGES OF ATTACHMENTS NOTED IN THIS PERMIT SHALL REMAIN WITH THIS
PERMIT AT ALL TIMES. CONDITIONS, AUTHORIZATIONS, AND APPROVALS ARE AS FOLLOWS:

ISSUED BY/DATE

Please see attached:

Wildlife Branch authorizations and conditions (14 pages dated May 29, 2019),
Entity List of Authorized Individuals (Attachment 2: 1 page dated May 29, 2019),
Standard Conditions for All SCPs (DFW 1379d; 2 pages dated July 01, 2017), and
Wildlife Authorizations (DFW 1379; 1 page dated October 31, 2017).

DEPARTMENT REVIEWER(S) SIGNATURE 1. APPROVED By Hannah Hughes at 4:54 pm, May 29, 2019	2.	3.
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California Department of Fish and Wildlife (Department) - Wildlife Branch
Authorizations and Conditions for Scientific Collecting Permit (SCP)
ENTITY: Humboldt State University (HSU); Vertebrate Museum
Principal Investigator: Melissa T. Hawkins
See Attachment #2 for the List of Authorized Individuals
May 29, 2019

SC-013979

APPROVED

By Hannah Hughes at 4:54 pm, May 29, 2019

Authorizations and conditions based on your 15-page SCP justification received by the Department on September 21, 2018, on file with the Nongame Wildlife Program (NWP).

Capture and release of amphibians, reptiles (Wildlife Authorization #5a) – including California Species of Special Concern- Southern long-toed salamander (*Ambystoma macrodactylum signatum*), Southern torrent salamander (*Rhyacotriton variegatus*), Red-bellied newt (*Taricha rivularis*), Coastal tailed frog (*Ascaphus truei*), Couch's spadefoot (*Scaphiopus couchii*), Western spadefoot (*Spea hammondii*), Northern red-legged frog (*Rana aurora*), San Diegan tiger [=coastal] whiptail (*Aspidoscelis tigris stejnegeri*) and Colorado desert fringe-toed lizard (*Uma notata*) – and small mammals (Wildlife Authorization #5b) is authorized in accordance with the additional conditions below.

You are authorized to **sacrifice** small mammals, reptiles and amphibians (**excluding Threatened, Endangered, CESA-Candidate, Fully Protected, Species of Special Concern and other mammal species/taxa identified in Condition #2**), and **collect of biological samples** of mammals, in accordance with the conditions below.

Salvage of dead reptiles, amphibians, and mammals (Wildlife Authorization #6) is authorized in accordance with the additional conditions below.

Permitted activities are restricted to the following geographic areas in California:

a. Geographic area where authorized wildlife may be captured, handled and/or removed from the wild:

Amador, Alpine, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Imperial, Inyo, Kern, Kings, Lake, Lassen, Los Angeles, Madera, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Orange, Plumas, Riverside, Sacramento, Santa Barbara, San Benito, San Bernardino, San Diego, San Joaquin, San Luis Obispo, Shasta, Sierra, Siskiyou, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, Yuba and Ventura counties

b. Location where collected wildlife specimens will be deposited:

Vertebrate Museum, Humboldt State University, Arcata, CA

Other Permits:

You shall obtain and maintain during the term of this SCP any federal permit(s) and/or other state permit(s) required to conduct the activities authorized herein. Although the provisions of the federal permit(s), other state permit(s) and this SCP may vary, the more restrictive conditions prevail. Copies of your federal permit(s) or other research-related permits (e.g., State Parks, landowner access agreements), and any amendments, shall be provided to the Department contacts (see below), and the names of all authorized sub-permittees shall be provided for the permit(s).

You shall carry all required documents, permits and MOUs, along with your SCP, with you while conducting all authorized activities.

Department contacts:

The primary Department contact for this terrestrial wildlife permit is the Wildlife Branch SCP coordinator (Justin Garcia, Environmental Scientist, Justin.Garcia@wildlife.ca.gov, 916-323-0644).

The Department contact for small mammals is Dr. Scott Osborn (Senior Environmental Scientist (Specialist), Scott.Osborn@wildlife.ca.gov, 916-324-3564); and the Department contact for amphibians/reptiles is Laura Patterson (Senior Environmental Scientist (Specialist), Laura.Patterson@wildlife.ca.gov, 916-341-6981).

Conditions to Scientific Collecting Permit
SC-013979

1. When a Memorandum of Understanding is needed

Intentional take or possession of species listed as Threatened, Endangered, or Candidate under the California Endangered Species Act (CESA), or intentional take or possession of Fully Protected species, is not authorized without a Memorandum of Understanding (MOU) from the Department on which you are specifically named.

Intentional take (e.g., capture) of the **Foothill yellow-legged frog (*Rana boylii*) and Cascades frog (*Rana cascadae*)**, CESA Candidate species, requires a CESA MOU or letter permit authorization and is not authorized solely by this SCP. Contact Laura Patterson (Laura.Patterson@wildlife.ca.gov) for more information.

After the California Fish and Game Commission makes a final finding, published in the California Regulatory Notice Register, regarding whether the petitioned action to add the Foothill yellow-legged frog or Cascades frog to the list of threatened or endangered species under CESA is warranted, the foothill yellow-legged frog and/or Cascades frog will either be added as a species authorized by this SCP, or a CESA MOU may be required should the species become listed under CESA.

To apply for a State MOU (e.g., for San Joaquin antelope ground squirrel (*Ammospermophilus nelsoni*)), contact the Department Research MOU Coordinators, Esther Burkett (Esther.Burkett@wildlife.ca.gov), Laura Patterson (Laura.Patterson@wildlife.ca.gov) for reptiles and amphibians, and Dr. Scott Osborn (Scott.Osborn@wildlife.ca.gov) for mammals, for study proposal requirements.

2. When additional authorization on your SCP is needed

Intentional take of Federally-listed species is not authorized without a valid federal permit **and** additional written authorization from the Department (e.g., Wildlife Authorization #8), on which you are specifically named or otherwise authorized.

Intentional capture and/or sacrifice of California Species of Special Concern (amphibians, reptiles, mammals) requires special authorization on your SCP. For purposes of this permit, the authorized Amphibian and Reptile Species of Special Concern (ARSSC) include: Southern long-toed salamander, Southern torrent salamander, Red-bellied newt, Coastal tailed frog, Couch's spadefoot, Western spadefoot, Northern red-legged frog, San Diegan tiger whiptail and Colorado desert fringe-toed lizard. ARSSC Western pond turtles (*Actinemys spp.*) may be salvaged, as well.

Intentional capture and/or sacrifice of rabbits, hares and pika (Lagomorpha), bats (Chiroptera), beaver, Porcupine (*Erethizon dorsatum*), carnivores (e.g., foxes, bear, ringtail, raccoon, marten, fisher, mink, badger, otters, bobcat, mountain lion, seals, sea lions), big game mammals (e.g., deer, elk, antelope, bighorn sheep) or mammals other than the authorized small mammals (Insectivora and most Rodentia) requires special authorization on your SCP.

Take of Mammal Species of Special Concern (MSSC), lagomorphs, beavers or porcupine may be allowed with additional written authorization from the Department (see Condition #3, below).

Incidentally-captured individuals of non-target wildlife taxa shall be released at the capture site immediately, once identified, without further handling, unless otherwise authorized for work on that species or subspecies in this permit.

You can find a list of species and subspecies designated as Threatened, Endangered, Candidate, Fully Protected, Species of Special Concern, or "Taxa to Watch" in the Department's Special Animals List at the following link: <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline=1>.

Marking of any species requires special authorization by the Department.

3. Prior to Conducting Activities with Mammal Species of Special Concern

Proposals to intentionally capture, mark and/or sacrifice MSSCs, lagomorphs, beavers or porcupine pursuant to this permit shall be submitted to Dr. Scott Osborn (Scott.Osborn@wildlife.ca.gov) and the Department Wildlife Branch SCP Coordinator (Justin.Garcia@wildlife.ca.gov), in an electronic format, at least 30 days prior to conducting activities. MSSC voucher specimens shall not be used for student teaching collections, but may be used to help better understand the conservation status and biology of the MSSC taxa.

Proposals for such activities shall include: (a) an explanation of the purpose of the study; (b) the names of personnel conducting the work; (c) a clear description of the methods to be used, including trapping and marking techniques; (d) the extent of the area to be surveyed; (e) the number and dates of surveys; and (f) a map depicting the location of the survey site(s).

If your proposal(s) are approved, separate written authorization from the Department will be provided to you as part of this permit. All separate written authorizations that you receive from the Department for standard exception mammal research activities shall become conditions of your SCP and shall remain attached to the SCP at all times while conducting the research (including hard copies of authorizations received via email).

4. Location of Research

Your research project may be located in a special status natural community or in an area that provides habitat for a non-target special status plant or animal. It is your responsibility to determine whether or not implementation of your research project could have potential adverse impacts to a listed or special status plant or animal or special status natural community. To minimize potential impacts, compile relevant biological information in the general project area prior to conducting field work or research. Generally, identify vegetation and habitat types occurring in your project area based on biological and physical properties of the site and surrounding ecological subregion¹, unless a larger assessment area is appropriate. Conduct a Rarefind or CNDB Quick Viewer search (<https://www.wildlife.ca.gov/Data/CNDB/Maps-and-Data>) and check with other reliable resources for known occurrences of special status plants, animals, or natural communities at the site before conducting your research. Contact the Wildlife Branch SCP Coordinator (Justin.Garcia@wildlife.ca.gov, 916-323-0644) if non-target special status plant or animal species are likely to be encountered or are being handled or disturbed.

You shall check with the landowner to determine if any other researchers are permitted to work in the same site or area. Prior to entering Department lands to conduct the research described herein, you shall first receive additional written authorization from the Reserve Manager; see also SCP Standard Condition D.

5. Protocol for Disinfecting Equipment

In an effort to minimize the spread of pathogens that may be transferred as result of capture activities, you shall implement the following protocol for disinfecting equipment and clothing before and after entering each aquatic site, unless the wetlands are hydrologically connected and sampling occurs working progressively downstream.

All organic matter shall be removed from nets, boots, vehicle tires, and all other surfaces that have come into contact with water or potentially contaminated sediments. Cleaned items shall be rinsed with clean water before leaving each capture site.

Boots, net, etc., shall then be scrubbed, sprayed, or dipped in either a 70 percent ethanol solution, a bleach solution (0/5 to 1/0 cup per 1/0 gallon of water), Virkon diluted to 1 gram/liter (3.78 gram per gallon of water), or Quat-128 (1 ounce per gallon of water) and rinsed clean with water between capture sites. Cleaning equipment in the immediate vicinity of an aquatic site shall be avoided. Care shall be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat.

¹ U.S. Forest Service Ecological Subregions of California: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=86840>

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When working at capture sites with known or suspected disease problems, a new powder-free vinyl glove (not latex or nitrile) shall be worn and changed between handling each tadpole. Gloves shall be wetted with water from the site prior to handling any tadpole. Glove shall be removed by turning inside out to minimize cross-contamination.

Used cleaning material (liquids, etc.) shall be disposed of safely and taken away for proper disposal.
Used gloves shall be retained for safe disposal in sealed bag.

6. Reptiles and Amphibians

You shall make a reasonable effort to coordinate with other researchers who may be conducting research on the authorized ARSSC in the same locations to avoid duplicate work and to avoid impacts to local populations, and to share information on individually-marked individuals and their movements.

a. Capture and Release

The authorized methods of capture for reptiles and amphibians are: hand, dip net, lizard noose, snake tongs, snake hook, snake restraining tubes (for rattlesnakes), and cover boards.

Only hand capture or dipnet is authorized for turtles. Your standard authorization (#5a) does not authorize live traps. To set live traps for reptiles and amphibians, you shall have explicit authorization via an SCP amendment.

The Department strongly recommends sufficient training, experience, or supervision to ensure personal safety and to avoid excessive stress on the rattlesnakes.

Capture methods shall avoid disturbing native reptile and amphibian eggs and egg masses. Amplexing or mating pairs of native amphibians and reptiles shall not be captured, handled, or disturbed.

Amphibians shall be handled with wet hands that are free of lotions, creams, sunscreen, oils, ointment, insect repellent or any other material that may harm them.

You shall process individuals expediently. Larval amphibians shall not be handled out of the water for longer than 30 seconds unless rewetted, and shall not be retained for longer than five (5) minutes for processing. Adult and juvenile amphibians and reptiles shall be released immediately if they exhibit signs of excessive physiological stress or if handling time exceeds one (1) hour.

All amphibians and reptiles shall be released at the point of capture, unless that location puts them in imminent danger, in which case they shall be placed in a nearby refugium sufficient to protect them; except as otherwise authorized for collection of voucher specimens (see Condition #9, below).

Any habitat element (e.g., rocks, boulders, and logs) moved to survey for reptiles or amphibians shall be placed back exactly where they were found to avoid negative impacts on habitat conditions.

Threatened, Endangered, CESA-candidate, or amphibian and reptile species of special concern (ARSSC) that are incidentally captured shall be immediately released at the site of capture and reported to the California Natural Diversity Database at least annually.

b. Incidental Injury or Mortality

All capture and handling methods utilized shall follow standard practices and ensure no undue disturbance of the authorized ARSSC and other wildlife species.

You shall report any incidental injury or mortality of a listed, candidate, or fully protected amphibian or reptile, and ARSSC to Laura Patterson (Laura.Patterson@wildlife.ca.gov) within three (3) days, and you shall provide a written report of the incident within ten (10) days via email.

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7. Small Mammals

a. Capture and Release

The authorized method of small mammal capture is by using live-traps (e.g., Sherman- or Tomahawk-brand) of appropriate size to avoid capture of medium-sized mammals or carnivores.

You shall have sufficient experience or training under an individual with mammal trapping experience before independently setting traps. When conducting presence/absence surveys using live-traps for small mammals (for this purpose, species in mammalian families Talpidae, Soricidae, Cricetidae, Dipodidae, Geomyidae, Heteromyidae, Muridae, and Sciuridae), you shall employ all reasonable measures to avoid injury to or mortality of individuals, particularly of special status species or subspecies (e.g., using traps of sufficient size and adjusting trap doors to create a gap to accommodate tails of kangaroo rats or pocket mice).

To avoid the risk of Hantavirus, we recommend handling mammals in open areas and using a respirator when cleaning traps. See also SCP Standard Condition M.

If trapping for authorized diurnal mammals within the known geographic range and habitat of the CESA-listed threatened Mohave ground squirrel (*Xerospermophilus mohavensis*), you shall close all traps during hours of darkness, unless you are using the traps to capture nocturnal mammals, during inclement or extreme weather, during daylight periods when the ambient temperature in the shade at ground level exceeds 90° Fahrenheit (°F), or when the ambient temperature falls below 40 degrees °F. You shall protect each trap from excessive heating by placing and maintaining it in the shade of a non-metal structure set in a north-south orientation. You may place open-mesh traps without such a shelter, until and unless authorized mammals (*X. tereticaudus*, *Otospermophilus* spp. or *Ammospermophilus* spp.) captured in these traps exhibit heat stress at 90° F or below. You shall check traps at least once every four hours. If Mohave ground squirrel is incidentally captured, you shall stop trapping at that site and obtain an MOU.

When working in squirrel colonies, report any Burrowing owls (*Athene cunicularia*) seen on the California Native Species Field Survey Form and contact Esther Burkett at Esther.Burkett@wildlife.ca.gov to report the owl location(s).

All small mammals shall be released at the point of capture, unless that location puts them in imminent danger, in which case they shall be placed in a nearby refugium sufficient to protect them; except as otherwise authorized for collection of voucher specimens (see Condition #9, below).

Mammal species of special concern (MSSC) that are incidentally captured shall be reported to CNDBB at least annually. You may not continue to trap at a site where MSSC or listed small mammals are captured without additional written authorization via an SCP amendment and/or a MOU for capturing and handling the species.

b. Non-invasive Marking and Sample Collection

You may collect hair, feces, buccal swabs and/or tissue sample from a single ear of adult and adult-sized juvenile small mammals (**excluding mammal species/taxa identified in Conditions #1 and #2; but including any MSSCs incidentally captured**), only with sufficient training and experience.

Handling time of individuals shall be minimized and measures shall be taken to avoid the transfer of infectious agents between mammals. Mammals exhibiting signs of excessive physiological stress shall be released immediately.

c. Sonoma Red Tree Vole

You may closely approach nests of the MSSC Sonoma red tree vole (*Arborimus pomoe*) and collect fecal samples within the nests, as described in your SCP justification and in accordance with commonly accepted protocols. You shall determine if the adults are present at the nest, and only collect fecal samples while the adults are away from the nest.

You shall accomplish the authorized activities without unduly disturbing adult or juvenile red tree voles. All reasonable precautions shall be taken to avoid nest abandonment, nest failure, nest predation, adult

or juvenile red tree vole predation, and to avoid attracting predators to nest sites. You shall avoid or cease nest sampling during inclement or extreme weather conditions that reasonably would expose contents of nests of the red tree vole to the elements, or if research personnel detect potential predators in the immediate vicinity.

You shall make a reasonable effort to coordinate with other researchers who may be conducting research on the MSSC red tree vole in the same locations to avoid duplicate work and to avoid impacts to local populations, and to share information on individually-marked individuals and their movements.

d. Incidental Injury or Mortality

You shall report any incidental injury or mortality of a listed, candidate, or fully protected mammal, and MSSC to Scott Osborn (Scott.Osborn@wildlife.ca.gov) within three (3) days, and you shall provide a written report of the incident within ten (10) days via email.

8. Pitfall Traps for Shrews

Pitfall traps for shrews are not authorized within the habitat and range of CESA- or Federally-listed, and shrew Mammal Species of Special Concern. Pitfall traps are not authorized within the specific habitats and ranges of any small mammal taxa noted in Condition #1 and #2 of this SCP, unless the traps are small enough to avoid capture of larger mammals (e.g., discarded bottles or small cups used for shrews only). If pitfall traps are used for shrews, they shall be checked at least once during the night (every two hours is recommended), and a food supply shall be provided to avoid mortality by starvation (e.g., worms, cat food). Any incidental, non-target mortalities of any mammal species from pitfall traps, over the authorized limits, shall be reported to the Wildlife Branch (Justin.Garcia@wildlife.ca.gov).

9. Sacrifice for Small Mammals, Reptiles and Amphibians

You shall make a reasonable effort to coordinate with any other researchers who may be collecting the same wildlife species in the same locations to avoid impacts to local populations (e.g., other professors at Humboldt State University; Matt House, Green Diamond Resource Company).

a. General Conditions

Lethal take for voucher specimens is authorized when necessary to fill museum collection gaps (e.g., documenting new location or new morphology for a location) at the Humboldt State University Vertebrate Museum.

Lethal take for research is authorized when necessary to obtain tissue samples for specific genetic studies, for taxonomic identification not otherwise obtainable by non-lethal methods, or for studies described in your SCP justification. Lethal take for genetic samples is authorized only when taking live tissue samples is not feasible or sufficient for the study.

Before conducting surveys at new locations, you shall consult GBIF.org, VertNet.org, and the California Natural Diversity Database (if you have a subscription) to determine whether vouchers already exist from the site and how recently they were collected.

Prior to removal of animals from the wild, reasonable consideration shall be made to obtain specimens via salvage, donation, wildlife rehabilitation centers, other researchers permitted by the Department, or locations imposing imminent death (such as for depredation) or deleterious alteration of habitat.

For purposes of this permit, a collection "site" is defined as one or more sampling localities that occur in the same geographic area and elevational/ecological zone, and represent the same breeding population for a given species.

b. Collection Limits for Small Mammals, Reptiles and Amphibians

You may sacrifice up to ten (10) individuals per species per collection site of non-special status reptiles, amphibians and small mammals (**excluding Threatened, Endangered, CESA-Candidate, Fully Protected species, Species of Special Concern, and other mammal species/taxa identified in Condition #2**), not to exceed a cumulative total of 50 individuals per small mammal species and 20

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individuals per amphibian/reptile species, throughout the term of this permit. You may collect amphibian eggs or larvae, not to exceed 20 eggs or larvae or 10% of the population, whichever is less.

You shall not sacrifice any slender salamanders (*Batrachoseps* spp.) that occur within the range of CESA-listed Desert slender salamander (*B. major aridus*), Kern Canyon slender salamander (*B. simatus*) and/or Tehachapi slender salamander (*B. stebbinsi*).

You may sacrifice up to two (2) specimens per authorized ARSSC per collection site, or no more than 20% of the local population, whichever is less, only if documenting new localities with voucher specimens, or those localities that have not been validated for over 10 years. Take of ARSSC for any other reason is prohibited. Take of the authorized ARSSCs shall not to exceed a cumulative total of five (5) individuals per species throughout the term of this permit.

The authorized ARSSC include: Southern long-toed salamander, Southern torrent salamander, Red-bellied newt, Coastal tailed frog, Couch's spadefoot, Western spadefoot, Northern red-legged frog, San Diegan tiger [=coastal] whiptail and Colorado desert fringe-toed lizard. You may not sacrifice other incidentally captured ARSSCs, and only photographs shall serve as voucher specimens, unless otherwise authorized in writing by the Department contact (Laura.Patterson@wildlife.ca.gov).

Information on detections of the Sonoran Desert toad, Sonoran mud turtle or Lowland leopard frog shall be immediately reported to the Department contact (Laura.Patterson@wildlife.ca.gov) within three (3) working days of their discovery.

Undocumented localities for ARSSCs or other Department "Special Animals" (e.g., Watch List- Del Norte salamander (*Plethodon elongatus*)) shall be established through the California Natural Diversity Database (CNDB) and VertNet.org.

Sacrifice of any Mammal Species of Special Concern (MSSC) or other standard exception mammal taxa listed in Condition #2 (above) is prohibited; but, some MSSCs may be permitted with additional written authorization from the Department (see Condition #3, above).

Total take shall be spread geographically and across various seasons, over three (3) study years (2019-2022), to the greatest extent possible, to avoid impacts to local populations, and in consideration of environmental factors such as extended drought conditions, take by other researchers, threats to the population(s), and cumulative impacts facing wildlife at the collection site(s). Rare species and subspecies shall receive special consideration in this regard.

c. Other Conditions for Sacrifice of Wildlife

You shall avoid or limit take, to the extent reasonably possible, of animals during their breeding seasons, or you shall take reasonable measures to avoid collection of gravid females and individuals who are actively brooding, feeding young, or defending young.

You shall take reasonable precautions to avoid undue disturbance, harassment, stress, or incidental injury of target and non-target species, or mortality over the authorized take limits.

You shall have the expertise to distinguish target animals from non-target wildlife, especially listed species or subspecies, using field techniques.

Sacrificed totals noted above are cumulative and shall not be exceeded by the combined efforts of other researchers associated with this project(s)

All authorized animals intended for sacrifice shall be captured using the methods specified above (See Condition #6, 7 or 8, above).

Any captured animals that are marked by other researchers shall not be sacrificed (see Reporting below), and shall be released alive and unharmed at the site of capture.

The authorized animals shall be sacrificed using humane euthanasia guidelines (AVMA 2013, Sikes et al. 2011, Beaupre et al. 2004). Research shall be conducted under an Institutional Animal Care and Use Committee Protocol (IACUC) protocol.

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The above limits do not apply to non-native and invasive small mammals, reptiles and amphibians (e.g., House mouse (*Mus musculus*), American bullfrog (*Lithobates catesbeianus*), Pond slider (*Trachemys scripta*)), or if collecting in an area where those non-native animals are otherwise being eradicated, or at locations where die-offs are occurring.

Note: some of the requested non-native animals (e.g., Nutria (*Myocastor coypus*), African clawed frog (*Xenopus laevis*), Snapping turtle (*Chelydra serpentina*)) are Restricted Species (California Code of Regulations, Title 14, Section 671(c)), and shall be euthanized at the site of capture and may not be held alive in captivity. Animals sacrificed using MS-222 shall not be disposed of in the wild.

You shall send notification to the Invasive Species Program for any non-native animals encountered and correctly identified (<https://www.wildlife.ca.gov/Conservation/Invasives/Report>).

10. Carnivores and Mesocarnivores

Intentional capture of carnivores is not authorized; however, salvage of dead carnivores and their scat is authorized, as specified in Conditions #10 and 11, below. Use field sign, direct observation, remote cameras and video surveillance to detect presence. All field activities shall be conducted to avoid den abandonment and predation of young or adults.

Scat Samples and Remote Cameras/Video Surveillance: (for select Mustelidae, Procyonidae, Canidae, Didelphidae, Mephitidae, Black bear and Bobcat)

Use of remote cameras and video surveillance for detection of carnivores is authorized. Scat collection is authorized for genetic studies and prey studies. Geographic and species-specific exceptions shall be adhered to, as noted in this permit.

While conducting these activities, you shall use all feasible means (e.g., limit the number of cameras; avoid or limit bait; do not place cameras near dens; and remove cameras once subject species are detected) to avoid predation, mortality or injury of the study animals, and to avoid harassment and undue disturbance of their normal behavioral patterns.

You are not authorized to conduct these activities on the same study areas of other researchers without receiving separate written authorization.

You are not authorized to conduct these activities in the known range of Fisher (*Pekania pennanti*), Pacific marten (*Martes caurina*), Sierra Nevada red fox (*Vulpes vulpes necator*), Sacramento valley red fox (*V. v. patwin*), Kit fox (*Vulpes macrotis*), Island fox (*Urocyon littoralis*), Gary wolf (*Canis lupus*) or Wolverine (*Gulo gulo*).

If you wish to conduct these activities in the known range of these listed and special concern species, you shall coordinate with Esther Burkett (Esther.Burkett@wildlife.ca.gov) and receive separate written authorization. Coordination with other researchers and a study proposal will be required.

American Badger (*Taxidea taxus*): Salvage of MSSC badgers or their parts is authorized statewide for genetic research and storage in a tissue archive. Other studies on badgers or other carnivores including research on pathogens, parasites or the effects of secondary poisoning due to rodenticides shall be coordinated with the Esther Burkett and the Department's Wildlife Investigations Lab. Contact Dr. Deana Clifford (Deana.Clifford@wildlife.ca.gov).

Ringtail (*Bassaris astutus*): Due to the Fully Protected status of Ringtail, the following activities are not authorized: trapping, scat collection, hair collection or burrow cameras (e.g., peep-a-roo); these activities may be authorized through the MOU process via an approved study proposal. Salvage allowed but shall be reported within 48 hours to Esther.Burkett@wildlife.ca.gov.

Mountain Lion (*Puma concolor*): Capture or salvage of Mountain lions or their parts (including scat and hair) is prohibited by law. If you wish to conduct these activities or any studies on mountain lions, contact Dr. Justin Dellinger (Justin.Dellinger@wildlife.ca.gov, Wildlife Investigations Lab).

Black Bear, Deer, Elk: If you wish to conduct scat collection activities for Black bear, Deer and Elk, you shall coordinate with Nathan Graveline (Nathan.Graveline@wildlife.ca.gov) and receive separate written authorization. Coordination with other researchers and a study proposal may be required.

11. Salvage of Mammals, Reptiles, and Amphibians

You may salvage mammals, amphibians, and reptiles incidentally killed during permitted activities or encountered dead in the field, as specified below. There is no limit to the number of salvaged wildlife.

a. Special Status Wildlife

Salvaged specimens of CESA-listed, CESA-Candidate, and Fully Protected species require disposition instructions from the Department (contact Esther Burkett, Esther.Burkett@wildlife.ca.gov, 916-531-1594; see also Reporting below). Fresh specimen(s) of these special-status taxa may require necropsy and shall be refrigerated, not frozen, until disposition is finalized. Federally-listed species require authorization and disposition instructions from the U.S. Fish and Wildlife Service (Service). After contacting Ms. Burkett within 24 hours of encountering a special-status species, you shall provide a report within ten (10) working days, via email, describing the collection location of the specimen including UTM zone, UTM coordinates and datum, date and time the specimen was encountered, name of observer/collector, and details regarding the specimen including sex, estimated age, condition of carcass, possible or probable cause of death, distance from any road, and any other relevant information or observation notes. Photographs of the specimen and the salvage locale shall also be provided to Ms. Burkett.

b. Prohibited Mammals

You may not salvage bats (Order Chiroptera) or marine mammals unless additionally authorized. Salvage of mountain lions (*Puma concolor*) or their parts is prohibited by law.

Black bears (*Ursus americanus*) may not be salvaged without obtaining additional authorization from the Department's regional law enforcement office and the regional wildlife management supervisor. Salvage of other big game species (i.e., Feral pig (*Sus scrofa*), Deer (*Odocoileus hemionus*), Elk (*Cervus elaphus*), Pronghorn antelope (*Antilocapra americana*), and Bighorn sheep (*Ovis canadensis*)) is not authorized without obtaining additional written approval from the Big Game Program (contact Nathan.Graveline@wildlife.ca.gov).

c. Handling Carnivores

You are strongly encouraged to have received appropriate pre-exposure rabies vaccinations and boosters, and/or have maintained a rabies antibody titer recommended by the U.S. Department of Health and Human Services (Centers for Disease Control (CDC)) and the California Department of Public Health (<https://www.cdph.ca.gov/Programs/CID/DCDC/pages/rabies.aspx>) before salvaging carnivores.

d. Sea Turtles

You may only salvage dead sea turtles in accordance with a valid federal permit from National Marine Fisheries Service (NOAA; <https://www.fisheries.noaa.gov/protected-species-permits>) on which you are specifically named or otherwise authorized. It is your responsibility to contact NOAA for all federal permitting requirements regarding take and possession of sea turtles.

e. Unsuitable Specimens

You shall leave specimens that are unsuitable for donation at the site or shall completely destroy them through burial or incineration. You shall obtain additional permission to salvage on private or public property from the landowner or custodian of that property.

f. Donations

HSU Vertebrate Museum may accept and display wildlife specimens received via private donation, if the donor has salvaged or taken the specimen under appropriate permit(s). Keep records of specimens received (i.e. by whom, when, and how they were obtained). If members of the public donate salvaged specimens, you may accept the donations, but they may not continue to independently collect on your behalf without being authorized by a Scientific Collecting Permit, when applicable. You shall keep a letter on the donor's letterhead or other formal record with the salvaged specimen indicating the name, number, and expiration date on each permit under which the specimen was salvaged, or other legal

May 29, 2019

means by which the specimen was taken (e.g. hunting license for game species, federal and/or State license(s) for nongame species). See also Condition #12, below.

g. Necropsy

If you believe a necropsy of any specimen may be warranted due to unusual conditions related to the carcass (e.g. abnormalities, signs of disease), keep the carcass cold, but not frozen until potential shipment can be arranged. Contact Esther Burkett (Esther.Burkett@wildlife.ca.gov), Dr. Deana Clifford (Deana.Clifford@wildlife.ca.gov), and Krysta Rogers (Krysta.Rogers@wildlife.ca.gov) with detail of the specimen and send any photographs (jpg files) that may be available.

The Department's "Guidelines for Shipping a Carcass" will be adhered to for any carcasses that will be sent to the Department's Wildlife Investigations Lab, unless otherwise instructed by the Department.

12. Disposition and Labeling of Specimens

You shall securely label each salvaged/sacrificed specimen or collected tissue samples with the following information: (a) date of salvage/sacrifice; (b) location of the specimen (GPS coordinates and datum); (c) species name; (d) unique identification number; (e) name and affiliation the person who salvaged/sacrificed the specimen; and (f) the permit number(s) and expiration date(s) under which the specimen was salvaged/sacrificed.

You shall deposit all salvaged/sacrificed specimens at the Humboldt State University Vertebrate Museum (Arcata, CA), or you may donate specimens to another public scientific or educational institution in California within one month of acquisition. The designated depositories are: Museum of Vertebrate Zoology, University of California, Berkeley, CA; Museum of Fish and Wildlife, University of California, Davis, CA; California Academy of Sciences, San Francisco, CA; or other depositories approved by the Department contacts.

To validate the specimens were collected pursuant to this permit, a copy of the Transfer of Possession – Chain of Custody form (DFW 1379c) shall accompany any specimens or samples when transferred to another person/entity.

13. Education, Handling, and Temporary Display

Following the conditions and protocols above, the authorized amphibians, reptiles and small mammals (**excluding Threatened, Endangered, CESA-Candidate, Mammal Species of Special Concern and Fully Protected species**) may be handled during educational field technique training courses to be displayed, identified and released immediately thereafter at the site of capture.

When teaching in the field, all due consideration shall be given to the health and safety of each individual animal and its unique response to all forms of handling and sampling, and the time period required for all activities. The most essential information should be gathered as the first order of business before subjecting any individual animal to increased handling time.

Training courses shall provide an educational program on the identification, biology, ecological role and conservation of the target wildlife, in addition to agency regulations, as appropriate.

Field Assistants, students and trainees may only handle, mark or sacrifice animals when under direct supervision (within three meters) of the Principal Investigator.

14. Plants

A Scientific Collecting Permit does not authorize collection of or incidental harm to a listed plant. To obtain a voucher permit for the incidental collection of a listed plant species for identification purposes, or to apply for a plant research permit, please go to <https://www.wildlife.ca.gov/Conservation/Plants/Permits> or contact Cherilyn Burton, Cherilyn.Burton@wildlife.ca.gov, 916-651-6508, Habitat Conservation Planning Branch. You shall obtain the property owner's permission to collect plant species. You may need a plant permit to work in the vicinity of listed plants even if you are not collecting them.

15. Reporting

Abstracts, reports, and other publications may be submitted to the Wildlife Branch SCP Coordinator (Justin.Garcia@wildlife.ca.gov) and the Department contact(s) noted below, in an electronic format (such as a pdf file), which is the preferred format.

If no activities were conducted with any or all species authorized under the SCP during the previous term of your permit, you shall state this in writing in your annual report and/or MWR form.

Annual Report(s) for ARSSC and Museum Collection Activities:

You are required to submit an annual report(s) to the Department contacts (Justin.Garcia@wildlife.ca.gov, Scott.Osborn@wildlife.ca.gov and Laura.Patterson@wildlife.ca.gov), in an electronic format, describing the results and significant findings of your research on ARSSCs and museum collection activities.

The annual reports shall be submitted on or before **January 31st** of the year following each year of research. The reports shall follow standard scientific format (Title, Date, Author(s) and Affiliation(s), Introduction, Study Area (with map), Methods, Results, Discussion, and Literature Cited). Photographs may be included as needed, or as an Appendix.

- i. The annual report(s) shall include, but not be limited to, the following information for all ARSSC captured and/or observed:
 - a. the dates of field work, site name, and names of all workers;
 - b. date observed and captured;
 - c. number and location of animals observed or handled (GPS coordinates and datum);
 - d. a map depicting the locations of the survey/research site(s);
 - e. a map indicating the locations of detections and/or locations where animals were captured and released;
 - f. information on individual health, condition, sex, maturity/estimated age, size, and morphometric measurements;
 - g. detailed identification information for any captured and/or marked animals (e.g., numbering codes and assignments of scute notches, and a photograph of pond turtle carapace);
 - h. habitat description, including photographs of sites where animals were detected;
 - i. estimates of population size, distribution, and relative density, if feasible;
 - j. any information regarding movements and habitat use;
 - k. a description of the number, causes, and location of any incidental injuries or mortalities;
 - l. the date and location of reposition of each salvable or injured specimen; and
 - m. other information important for conservation of the ARSSC along with a description of known threats to the species and any management recommendations.
- ii. The annual reports shall include, but not be limited to, a table containing sacrifice and salvage data (i.e., a modified version of the MWR form, below). The table shall contain and differentiate all directly sacrificed/salvaged versus accepted/received as donated animals taken into possession. The annual report shall also include all special-status taxa encountered, salvaged, or accepted/received as donated, including a detailed tabulation of all 10-day reporting information noted in Condition #11a, and a separate discussion of results from any necropsies. Unless otherwise available to the Department contact, all necropsy reports shall also be provided to the Department contact upon request, and shall be included in the annual reports under this permit.
 - a. date, and differentiated as sacrificed, salvaged, sampled, accepted/received as donated, and/or encountered;
 - b. name of the person who collected or encountered the specimen;
 - c. common name and species or subspecies name;
 - d. number and location of individual animals salvaged and/or encountered (UTM zone, coordinates and datum), including sex and age (if known), county, street names or highway and the nearest city;
 - e. detailed identification information for any marked animals;
 - f. cause of mortality (if known);
 - g. road type and speed limit, if applicable;
 - h. habitat description; and
 - i. the date and location of reposition of each salvable specimen.

Mandatory Wildlife Report (MWR) Form:

You shall report all take of wildlife, including incidental take (e.g., capture) of non-target species, on the MWR form within 30 days of expiration of the permit. In cases where large quantities of incidental capture cannot be avoided, such as with dip nets, you may estimate numbers to the best of your ability, or use a general description of the quantity.

When you submit the MWR form, please reference your annual scientific reports for the museum collection and ARSSC research described above and any CNDDDB data that have been submitted to the Department. There is no need to repeat the more detailed information contained in your CNDDDB forms on the MWR form.

Camera Traps and Scat Transects:

You shall also submit a table of all special status species and carnivores detected via wildlife cameras or scat identification, and the table shall include the following:

- a. Name of specific locale in the study area;
- b. Date(s) of detection;
- c. Time of detection;
- d. UTM zone, datum, and UTM coordinates;
- e. Elevation;
- f. Species detected, including scientific name; and
- g. General habitat description.

If available, the report shall also include copies of photographs of all Listed, Candidate, Fully Protected, Special Concern, and carnivore species detected (e.g., Ringtail (*Bassaris astutus*), Coyote (*Canis latrans*), Red fox (*Vulpes vulpes*)). If the photographic information is too voluminous, electronic files may be made available to the department in digital format, though the tabular data is also required.

Other Reports:

You shall also provide copies of abstracts you may prepare for any papers you present, or copies of any papers you prepare for popular articles or scientific journals, or copies of any periodic, annual, or final report that you prepare or assist in preparing for a client or other third party.

California Natural Diversity Database (CNDDDB):

For any Threatened and Endangered, Candidate, Fully Protected, or Species of Special Concern encountered and correctly identified (see the Department Special Animals list), you shall send occurrence data to the CNDDDB. You shall submit point data to the CNDDDB at least annually. Data can be submitted on the standard CNDDDB Field Survey Forms (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=25739&inline=1>), in an electronic spreadsheet with an attached map depicting locations of observations, or via the Online Field Survey Form (<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>). Include known threats to the species in your submittal. A cross reference to your annual report(s) shall also be included.

16. Regional Office Notification and Report Circulation

In addition to the regional office notification requirement in Standard Condition F, you shall send notification to the regional biologists listed below for work in the counties below. You should have a specific project before conducting any work authorized by this SCP and notify the regional contact prior to the start of each new project. Submit electronic copies of any reports produced or required by this permit within two weeks of completion, to the contact listed below, as appropriate for the counties of your work.

Napa, Sonoma
Stacy Martinelli, Stacy.Martinelli@wildlife.ca.gov, 707-576-2868

Alameda, Marin, Contra Costa
John Krause, John.Krause@wildlife.ca.gov, 415-454-8050

Alameda, San Francisco
Marcia Grefsrud, Marcia.Grefsrud@wildlife.ca.gov, 707-644-2812

Inyo, Mono
Lacey Greene, Lacey.Greene@wildlife.ca.gov, 760-872-1128

Inyo, Mono, Imperial, Riverside, San Bernardino
Steve Parmenter, Steve.Parmenter@wildlife.ca.gov, 760-872-1123

For mammal work only:

Mendocino: Scott Koller, Scott.Koller@wildlife.ca.gov, 707-456-0329

Modoc: Richard Shinn, Richard.Shinn@wildlife.ca.gov, 530-340-3581

Lassen: Brian Ehler, Brian.Ehler@wildlife.ca.gov, 530-254-6808

Shasta and Trinity: Pete Figura, Pete.Figura@wildlife.ca.gov, 530-225-3224

and Jennifer Carlson, Jennifer.Carlson@wildlife.ca.gov, 530-225-2754

Siskiyou: Bob Schaefer, Robert.Schaefer@wildlife.ca.gov, 530-598-6820

Tehama: Scott Hill, Scott.Hill@wildlife.ca.gov, 530-529-7162

For reptiles and amphibians only:

Mendocino, Humboldt, Del Norte

Michael Van Hattem, Michael.VanHattem@wildlife.ca.gov, 707-445-5368

Santa Barbara, San Diego, Orange, Los Angeles, Ventura

Tim E. Hovey, Tim.Hovey@wildlife.ca.gov, 661-297-8920

Imperial, Riverside, San Bernardino

Marissa Caringella, Marissa.Caringella@wildlife.ca.gov, 909-980-1381

Department Central Region

Craig Bailey, Craig.Bailey@wildlife.ca.gov, 559-243-4014 x 227

When working on Department lands and/or with special status species:

San Francisco, San Mateo, Santa Cruz, Santa Clara

Terris Kasteen, Terris.Kasteen@wildlife.ca.gov, 408-365-1066

17. Standard Provisions

The attached provisions shall also be followed: Standard Conditions for All Scientific Collecting Permits (2 pages dated July 01, 2017).

18. List of Authorized Individuals

All researchers working independently on your research project(s) shall carry a copy of this SCP and be named on your Entity SCP List of Authorized Individuals (LAI; Attachment #2).

The Principal Investigator(s) may request to change or add Independent Researchers or Field Assistants to be named on the LAI by submitting a SCP amendment application with the following information: a) name and driver's license # of the individual; b) species the individual will be working with; c) research activities the individual will conduct; d) whether or not these research activities will be conducted independently or under direct supervision (within three meters); and e) resumes/CVs and statements of qualifications that describe the individual's experience with the species, and experience with the research methods to be employed in the study. Letters of recommendation may also be required as supplemental information.

19. Term

This Entity SCP shall be in your possession while conducting the work described above, and is valid for three years from the date of issuance.

You may use the SCP amendment form for any modifications to your research in the future (<https://www.wildlife.ca.gov/Licensing/Scientific-Collecting>).

Minor deviation from the stipulated terms and conditions may be authorized on a case-by-case basis when approved by the Department contact unless an amendment to this permit would be required.

Should you have any questions, please contact Laura Patterson (Laura.Patterson@wildlife.ca.gov), Scott Osborn (Scott.Osborn@wildlife.ca.gov) and/or Justin Garcia (Justin.Garcia@wildlife.ca.gov).

May 29, 2019

Literature cited:

American Veterinary Medical Association (AVMA). 2013. AVMA Guidelines for the Euthanasia of Animals: 2013 Edition. <https://www.avma.org/KB/Policies/Documents/euthanasia.pdf>.

Beaupre, J., E.R. Jacobson, H.B. Lillywhite, and K. Zamudio. 2004. Guidelines for use of live amphibians and reptiles in field and laboratory research. Second Edition. Revised by the Herpetological Animal Care and Use Committee (HACC) of the American Society of Ichthyologists and Herpetologists.
<http://www.asih.org/sites/default/files/documents/resources/guidelinesherpsresearch2004.pdf>

Sikes et al. 2011. Guidelines of the American Society of Mammalogists for the use of wild mammals in research. Journal of Mammalogy, 92(1):235–253.



State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Wildlife Branch
Nongame Wildlife Program
1812 9th Street
Sacramento, CA 95811
<http://www.wildlife.ca.gov>

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



Expiration Date: see SCP

Attachment 2
LIST OF AUTHORIZED INDIVIDUALS

Melissa T. Hawkins (SC-013979)
Principal Investigator
Humboldt State University Vertebrate Museum

May 29, 2019

1. Individuals authorized to conduct scientific research activities pursuant to this Wildlife Branch Entity Scientific Collecting Permit (SCP):

Principal Investigator:

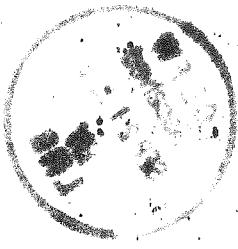
Melissa T. Hawkins

Authorized Individuals:

Sharyn Marks and Nicholas Kerhoulas

Field Assistants: Students

2. The Principal Investigator is authorized to independently conduct all wildlife research activities pursuant to this permit, and shall have adequate supervision over all individuals named on this list. The Principal Investigator is responsible for all reporting requirements.
3. After receiving adequate training and experience with the authorized species and methods, as determined by the Principal Investigator, the Authorized Individual(s) listed above may conduct activities pursuant to this SCP without the direct supervision of the Principal Investigator.
4. Field Assistants shall work under the direct, on-site supervision, i.e., within 3 meters, of the Principal Investigator or an Authorized Individual and may assist on research efforts, until such time as the Principal Investigator can certify in writing to the Department, and the Department responds favorably, that the individual may work independently.
5. A SCP amendment form shall be submitted, approved, and returned to you by the Department before you can add or remove personnel from this list. A request to elevate a Field Assistant(s) to Authorized Individual(s) does not require a formal amendment form and fee.
6. This list, the Entity SCP and any amendments shall be in the possession of all individuals independently conducting work in the field.



18 AD

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE
SCIENTIFIC COLLECTING PERMIT
APPLICATION FEE
See permit for validity dates.

CALIFORNIA
FISH & WILDLIFE
D-0024429433-1

GO ID: 1063416753
NO ACTIVE ID
HUMBOLDT STATE UNIVERSITY'S
VERTEBRATE MUSEUM
1 HARPST ST
ARCATA, CA 95521

Doc No: D-0024429433-1
Trans: 000000018551487
246535768

Outlet No: 310001-001
9/24/2018 2:28:17 PM

Item	Fee*
Scientific Collecting App Fee	\$108.92
Total:	\$108.92

*Includes any applicable application fees, agent handling fees and license buyer surcharge.

----- End of Document D-0024429433-1 -----

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE
9/24/2018 2:28 PM
CDFW License and Revenue Branch
Outlet No: 310001-001
Clerk: KBATISTA
Purchase Receipt
Trans # 18551487

HUMBOLDT STATE UNIVERSITY'S
VERTEBRATE MUSEUM
GO ID: 1063416753

Item Name	Amount
Scientific Collecting App Fee	\$108.92
Customer Total:	\$108.92

CDFW Item Fees Sub Total: \$108.92
Transaction Total: \$108.92

CHECK 578 \$108.92
Tender Amount: \$108.92
CHANGE: (\$0.00)
Total Amount: \$108.92

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE
6/18/2019 4:23 PM
CDFW License and Revenue Branch
Outlet No: 310001-001
Clerk JHERRERA20
Purchase Receipt
Trans #20109607

HUMBOLDT STATE UNIVERSITY'S
VERTEBRATE MUSEUM
GO ID: 1063416753

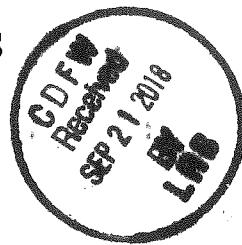
Item Name	Amount
Scientific Collecting Permit	\$324.75
Customer Total:	\$324.75

CDFW Item Fees Sub Total: \$324.75
Transaction Total: \$324.75

CREDIT CARD 009445 \$324.75
Tender Amount: \$324.75
CHANGE: (\$0.00)
Total Amount: \$324.75

APPENDIX 2. SPECIES LIST FOR AMPHIBIANS AND REPTILES

Coast Nightsnake *Hypsiglena ochrorhyncha*
 Common Sharp-tailed Snake *Contia tenuis*
 Forest Sharp-tailed Snake *Contia longicauda*
 Ring-necked Snake *Diadophis punctatus* (northern California populations only)



NATRICIDAE (*Harmless Live-bearing Snakes*)

Common Gartersnake *Thamnophis sirtalis* (excluding *T.s. tetrataenia* and *T. s. pop. 1*)

Terrestrial Gartersnake *Thamnophis elegans*
 Southern Watersnake *Nerodia fasciata*
 Common Watersnake *Nerodia sipedon*
 Northwestern Gartersnake *Thamnophis ordinoides*
 Aquatic Gartersnake *Thamnophis atratus*

CROTALIDAE (*Pitvipers*)

Western Rattlesnake *Crotalus oreganus*
 Sidewinder *Crotalus cerastes*
 Mohave Rattlesnake *Crotalus scutulatus*
 Speckled Rattlesnake *Crotalus mitchellii*
 Western Diamond-backed Rattlesnake *Crotalus atrox*

SCIENTIFIC COLLECTING PERMIT/AMENDMENT ISSUANCE LETTER

Your Scientific Collecting Permit (SCP) or SCP Amendment is enclosed and must be in immediate possession while collecting. You may not have been authorized for everything requested. Please read carefully the Conditions, Authorizations, and Approvals section of the enclosed permit or amendment and the descriptions of the enclosed Number Authorizations and Mandatory Conditions page.

VALID DATES OF PERMIT AND PERMANENT IDENTIFICATION NUMBER

Your permanent Scientific Collecting Identification Number (SCIN), which is prefaced with SC- followed by six digits, and the valid dates (from and through) of your permit/amendment are both located on the top portion of your permit/amendment in the DEPARMENT USE ONLY section. The stamp that is affixed to your SCP is used only for the Department of Fish and Wildlife's (Department) internal accounting purposes and the number and date on the stamp does not apply to the identification or term of your SCP.

PRIOR NOTIFICATION OF INTENT TO COLLECT IS MANDATORY

You must notify the Department regional office at least 24 hours prior to conducting the activity authorized by your SCP in the field. Complete and submit via fax the Notification of Intent to Collect for Scientific Purposes form (FG1379f), which is available online at www.dfg.ca.gov/licensing/specialpermits/, to the regional office whose boundaries surround the area where you will be collecting. Use the map on the form to determine the appropriate regional office to contact and fax number to use.

REPORTING REQUIREMENTS

You must carry the Report of Specimens Captured or Salvaged (FG 1379a) with your SCP and any amendments while collecting. The report must be filled out immediately upon completion of each collecting trip. The disposition portion of the report may be filled out when final disposition of the animals is known. Section 650(i), Title 14, of the California Code of Regulations (CCR) requires that SCP permittees submit a report within 30 days of the expiration of the permit or upon submitting an application to renew a SCP. The report and instructions for completing it are available at www.dfg.ca.gov/licensing/forms/ in a fill and save format. Upon completion of this electronic report, print a copy and attach it to your SCP application or you may send an electronic copy to the License and Revenue Branch at spu@dfg.ca.gov. Each individual to whom a SCP is issued must provide their own Report of Specimens Captured or Salvaged. If you are not renewing your permit, you are still required to submit a final report within 30 days after of the expiration of your SCP.

If you do not collect any specimens or collect the same individuals as another permittee, you still need to submit a report. Enter a single line indicating that no specimens were collected or indicate the permittee's name and SCP number for the specimens already reported. DO NOT DUPLICATE DATA.

The Department also requires that you record your field observations of Threatened, Endangered, or Special Concern species for addition to the California Natural Diversity Database. The California Native Species Field Survey Form, instructions, and other acceptable formats, including digital, are available at www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp.

AMENDMENTS TO YOUR SCP

If you want to request additional authorizations to your existing SCP or your affiliation changes, or if adding/removing employees or volunteers (for qualified entities), you must complete and submit a Scientific Collecting Permit Amendment Form (FG1379e), which is available online at www.dfg.ca.gov/licensing/forms/. You may not begin new collection activity until you have received an approved validated amendment.

WHERE DO I GET FORMS?

The SCP Amendment Form, Notification of Intent to Collect for Scientific Purposes form, Report of Specimens Captured or Salvaged, Special Animals List or California Native Species Field Survey form may be accessed at the Department's websites listed above or by contacting the Department of Fish and Wildlife, License and Revenue Branch at 1740 N. Market Blvd., Sacramento, CA 95834, telephone (916) 928-5849 or e-mail spu@dfg.ca.gov.

RABIES EXPOSURE INFORMATION

The California Department of Public Health recommends precautions when handling specimens of wildlife that pose high-risk exposure to rabies. Species that represent a high risk for human rabies exposure (skunks, bats, foxes, raccoons, wild felids and canids) should be handled with the following precautions:

- Specimen handlers are strongly encouraged to obtain rabies pre-exposure prophylactic immunizations.
- Protective gloves and a face shield should be worn when collecting or handling specimens.
- Saliva and neurological tissue should be considered infectious. Gloves and instruments that may be contaminated with saliva or neurological tissue must be treated as infectious.
- If any injuries resulting in broken skin are contaminated with saliva or neurological tissue from a high-risk dead specimen, the person should immediately consult a physician about appropriate rabies prophylactic treatment.
- Specimens should be prepared by a taxidermist to reduce the potential risk.

Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
AUTHORIZATIONS AND CONDITIONS

STANDARD CONDITIONS FOR ALL SCIENTIFIC COLLECTING PERMIT (SCP) HOLDERS

- A. No collections may be made in any Marine Protected Area (www.dfg.ca.gov/mlpa/mpa_summary.asp) (i.e. State Marine Reserve, State Marine Conservation Area, State Marine Park, State Marine Recreational Management Area), State Reserve, Marine Life Refuge, Fish Refuge, Wildlife Area, Ecological Reserve, Rockfish Conservation Area, or Cowcod Conservation Area without approval from both the Department through an SCP with specific concurrence from the Department manager for that area.
- B. Pursuant to California Fish and Game Code (FGC), Sections 1002 and 1003, and Section 650, Title 14, of the California Code of Regulations (CCR) the permittee is authorized to collect specimens of fish and wildlife according to the conditions listed on this permit. ~~The permittee must be present and carry this Scientific Collecting Permit, any amendments to the permit and additional authorizations (letters or MOUs) at all times when collecting. These forms must be in possession when collecting and must be shown upon request to any person authorized to enforce Fish and Game laws and regulations.~~
- C. You must carry the Report of Specimens Captured or Salvaged (FG1379a) with your Scientific Collecting Permit and any amendments while collecting. The report must be filled out immediately upon completion of each collecting trip. The disposition portion of the report may be filled out when final disposition of the animals is known. Pursuant to Section 650(i), Title 14, of the CCR, permittees are required to submit a report within 30 days after the expiration of the permit or sooner if submitting an application to renew a SCP, whichever comes first.
- D. You must notify the local Department office of the event and location of your activities prior to collecting. Notification must be made during normal business hours, at least 24 hours prior to collecting and can be made using the Notification of Intent to Collect for Scientific Purposes form (FG-1379f) available at www.dfg.ca.gov/licensing/specialpermits/. You may use your own template or format as long as the required information shown on the form is provided.
- E. This permit does not relieve the permittee of the responsibility to obtain any other permits, or comply with any other Federal, State, or local laws or regulations. It is the responsibility of the permittee to know the boundaries and managing authority of specially designated protected areas or sanctuaries.
- F. No other sport or commercial fishing activities or collection of unauthorized species is allowed on the same trips or time periods as scientific collection activities.
- G. You must submit data to the California Natural Diversity Database (CNDDDB) in an acceptable format or complete California Native Species Field Survey (CNSFS) form for any Threatened, Endangered, or Special Concern Species captured. Mail to the address listed on the CNSFS form. The CNSFS form and other accepted formats are at www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp.
- H. Once removed from the wild, animals may not be returned to the wild without prior written permission from the Department.
- I. Marking or tagging of any kind is not authorized by this permit unless it is specifically requested by the permittee and authorized in writing by the Department.
- J. Use of pitfall traps is not authorized by this permit unless it is specifically requested by the permittee and authorized in writing by the Department.
- K. To band or to take birds protected by the Migratory Bird Treaty Act, you must attach a copy of all current federal permit(s) authorizing this activity with your SCP application.
- L. You must mark each trap set to capture mammals with your Scientific Collecting Identification Number (SCIN) before placing the trap in the field. Marking traps with an identification number is a requirement of FGC Section 4004. The SCIN shall be stamped clearly on the trap or on a metal tag attached directly to any part of the trap (Section 465.5(g), Title 14, of the CCR). Tagging the trap allows the person to remove the tag before another permittee uses the same trap and attaches his/her own tag.

California Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
AUTORIZATIONS AND CONDITIONS (*Continued*)

NUMBER AUTHORIZATIONS REQUESTED BY PERMITTEE / NUMBER AUTHORIZATIONS ISSUED BY DEPA

For all freshwater species, except vernal pool species (see #4 below), you must provide detailed justification.

MARINE AUTHORIZATIONS

1. You may take or possess marine fishes (excluding salmon, steelhead, striped bass, and sturgeon - request authorization to collect these under **Anadromous Fishes**) **not to exceed sport fishing bag limits; sport fishing seasons and size limits shall apply.** Cowcod, giant sea bass, garibaldi, gulf grouper, broomtail grouper, and white shark may not be taken. Authorized methods of take: hand, hook and line, seine (except beach seine), dip nets, spear, dredge, hand tools, and trap (when marked with Scientific Collecting Identification Number (SCIN)). You shall mark buoys with your SCIN, to be maintained in a readable condition.
2. You may take or possess marine aquatic plants **not to exceed 10 pounds wet weight** in the aggregate. Eel grass, surf grass, and sea palm may not be taken. Authorized method of take: hand and hand tools.
3. You may take or possess marine invertebrates **not to exceed sport fishing bag limits; sport fishing seasons and size limits shall apply.** Authorized method of take: hand, hook and line, seine (except beach seine), dip nets, spear, dredge, hand tools, and trap (when marked with your SCIN). You shall mark buoys with your SCIN, to be maintained in a readable condition.

WILDLIFE AUTHORIZATIONS

4. You may take terrestrial invertebrates and vernal pool invertebrates. Threatened or Endangered Species inadvertently collected shall be immediately released and reported to the Department of Fish and Wildlife, Wildlife Branch, Scientific Collecting Permit Biologist, 1812 9th St., Sacramento, CA 95811 on copies of California Native Species Survey (CNSFS) forms (**see Mandatory Condition G**) within three business days. Authorized methods of take: hand and net.
- 5a. You may capture and release an unlimited number of amphibians and reptiles, only for the purposes of identification and documentation. All animals captured shall be released alive and unharmed at the capture site and may not otherwise be removed from the wild unless authorized by the Department. Specimens of Threatened or Endangered Species inadvertently collected shall be immediately released and reported to the CNDBB (**see Mandatory Condition G**). Authorized methods of trapping are hand, dip net, minnow seine, lizard noose, snake tongs and snake hook.
- 5b. You may purposefully capture (**see Mandatory Condition L**) and release an unlimited number of small mammals, but only for the purposes of identification and documentation. You shall immediately release all captured individuals alive, unharmed, and unmarked at the site of capture and shall not otherwise handle these animals without additional authorization from the Department.
6. You may salvage dead amphibians, reptiles, and mammals. You shall leave specimens that are unsuitable for donation at the site or shall completely destroy them through burial or incineration. You shall obtain additional permission to salvage on private or public property from the landowner or custodian of that property. You shall tag each salvaged specimen with the following information: (a) date of salvage and location of the specimen; (b) name of the person who salvaged the specimen; and (c) the permit number under which the specimen was salvaged. You shall deposit all salvaged specimens in a public scientific or educational institution within one month of acquisition.
7. You may take birds in accordance with your federal permit(s). The Department may require additional or modified conditions that will be noted on your SCP. You shall immediately release any inadvertently-taken Threatened or Endangered Species and report their capture to the CNDBB (**see Mandatory Condition G**).
8. You may take species that are only federally-listed in accordance with your existing federal permit(s). The Department may require additional or modified conditions that will be noted on your SCP. If you are using traps to take mammals, you must follow Mandatory Condition L. You shall immediately release any Threatened or Endangered Species not authorized in your federal permit and report their capture to the CNDBB (**see Mandatory Condition G**).
9. You may take species that are both federally-listed AND CESA-listed, CESA-Candidate, and/or Fully Protected in accordance with your existing federal permit(s) and your State MOU(s) or permits. You shall immediately release any Threatened or Endangered Species not authorized in your federal permit and State MOU or permit, and report their capture to the CNDBB (**see Mandatory Condition G**).



NOTIFICATION OF INTENT TO COLLECT FOR SCIENTIFIC PURPOSES

Regional Office: Please forward this notification to the appropriate biological and law enforcement staff covering the locations below.

Instructions: It is mandatory to complete all items. Type or print clearly in ink. You must notify the Department of Fish and Wildlife regional office by noon one (1) business day prior to scientific collecting activity authorized, and no more than two weeks in advance of your activity. Collectors: Use the map on the back of this form to determine the regional office whose boundaries surround the area where you will be collecting and the appropriate fax number. If you are unable to fax this form, you must telephone the office directly during business hours and provide this information.

# OF PAGES (including this form)	TODAY'S DATE			PERMANENT ID NUMBER SC-
TO: Department of Fish and Wildlife regional office Select a Department of Fish and Wildlife Office		FAX NUMBER OR EMAIL Select a CDFW Fax Number		
FROM: PERMITTEE'S FIRST NAME	LAST NAME		DAY TELEPHONE	
INSTITUTION/ENTITY'S NAME			E-MAIL ADDRESS	
1 st DATE COLLECTING	2 nd DATE COLLECTING	3 rd DATE COLLECTING	4 th DATE COLLECTING	5 th DATE COLLECTING
TIME COLLECTING	TIME COLLECTING	TIME COLLECTING	TIME COLLECTING	TIME COLLECTING
SPECIFIC LOCATION	SPECIFIC LOCATION	SPECIFIC LOCATION	SPECIFIC LOCATION	SPECIFIC LOCATION
COUNTY	COUNTY	COUNTY	COUNTY	COUNTY
NUMBER IN PARTY	NUMBER IN PARTY	NUMBER IN PARTY	NUMBER IN PARTY	NUMBER IN PARTY
YEAR/MAKE OF VEHICLE	YEAR/MAKE OF VEHICLE	YEAR/MAKE OF VEHICLE	YEAR/MAKE OF VEHICLE	YEAR/MAKE OF VEHICLE
COLOR/LICENSE PLATE #	COLOR/LICENSE PLATE #	COLOR/LICENSE PLATE #	COLOR/LICENSE PLATE #	COLOR/LICENSE PLATE #
DESCRIPTION OF BOAT	DESCRIPTION OF BOAT	DESCRIPTION OF BOAT	DESCRIPTION OF BOAT	DESCRIPTION OF BOAT
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SPECIES TO BE COLLECTED	SPECIES TO BE COLLECTED	SPECIES TO BE COLLECTED	SPECIES TO BE COLLECTED	SPECIES TO BE COLLECTED

California Department of Fish and Wildlife Regions

