

**Lawrence E. Hunt
Consulting Biologist**

Santa Monica Mountains Conservancy
Mountains Recreation and Conservation Authority
570 West Avenue 26, Suite 100
Los Angeles, California 90065

20 August 2010

Subject: Peer Review of Malibu Parks Public Access Enhancement Plan—Public Works Plan, Comments on Adequacy of FEIR for Biological Resources

Professional Qualifications. I have attached my resume to this letter. I am trained as a vertebrate biologist, with graduate degrees from the University of California and University of Kansas. I am very familiar with the project area. Field research towards my Ph.D. included a number of sites in the Santa Monica Mountains, some within the project area, and since starting a biological consulting business in 1989, I have been engaged in dozens of projects in the Santa Monica Mountains dealing with a variety of development projects that affected vegetation and special-status plants and animals. Many of these projects also have included a habitat restoration and monitoring element. Recently, I was retained by the National Marine Fisheries Service to prepare a Threats Analysis and develop Recovery Actions for the southern steelhead in 58 watersheds along the central and south coast of California. This analysis included the Santa Monica Mountains sub-group, including most of the perennial drainages along the south coast of this area. Several site visits were made to drainages in and around the subject project area to assess movement barriers for steelhead and evaluate restoration potential.

Introduction. I have reviewed the following portions of the Draft EIR (DEIR) for this project:

- Vol. I, DEIR, Section 5.4, Biological Resources:
 - Characterization of Existing Conditions
 - Impact Analysis
 - Mitigation Recommendations
- Vol. II: DEIR Technical Appendices:
 - Appendix D-1: Public Access Plan for the Proposed Plan and Redesign Alternative Plan
 - Appendix F: Native Tree Protection Plan
- Vol. III: DEIR Technical Appendices:
 - Appendix H-1: Biological Resources
 - Appendix H-2: Biological Concept Mitigation Restoration Plans

Hunt & Associates
Biological Consulting Services
5290 Overpass Road, Suite 108
Santa Barbara, California 93111

Phone: (805) 967-8512 Fax: (805) 967-4633
e-mail: anniella@verizon.net

- Appendix I: Fire Protection Plan
- Appendix L: Hydrology/Bridge Crossing Report

I have also reviewed the following Final EIR documents prepared for the proposed plan and including the Modified Redesign Alternative (MRA):

- Vol. IV: FEIR Comments on Draft EIR & Responses and the Modified Redesign Alternative
 - Chapter 14, Section 3.4: Biological Resources (Comparison of Impacts to Biological Resources from Proposed Project and MRA, and Mitigation Recommendations for MRA Impacts)
 - Chapter 15, Alternatives (Including the MRA)
 - Chapter 16: Responses to Comments of the Draft EIR
 - Appendix MRA-8: MRA Biological Resource Figures
 - Appendix MRA-9 (aka Appendix H-3): 2010 Plant and CA Gnatcatcher Surveys
 - Appendix MRA-10: MRA Native Tree Protection Plan
 - Appendix MRA-11: MRA Concept Biological Restoration Plan
 - Appendix MRA-12: LSA Ramirez Canyon Park Creek Biological Study

Discussion of Biological Resource Impact Analysis. In summary, the DEIR and FEIR for the MRA provide a detailed assessment of potential project-related impacts to biological resources (vegetation, plant species, animal species, water quality), and the proposed mitigation measures will reduce the identified impacts to below threshold levels for significance. In support of this conclusion, I offer the following observations:

Impacts to Vegetation During Construction: Project construction would result in the removal of sensitive vegetation and this impact is considered potentially significant. In addition to applicant-proposed mitigation measures, changes have been incorporated into the Project from a thorough analysis and consideration of public comments that will ensure that impacts to vegetation will be less than significant during the construction phase of the Project.

Short-Term Indirect Impacts During Construction—Sensitive Vegetation and Special Status Plants: Dust generated by construction could affect sensitive vegetation, including special-status species, and construction could cause related soil erosion and increased surface runoff that could affect both upland habitats and water quality. Additionally, there could also be a potential for vegetation adjacent to work areas to be trampled by construction personnel and equipment. Short-term indirect impacts to sensitive vegetation would be potentially significant but can be mitigated to less than significant levels. Changes or alterations have been required in, or incorporated into, the Project to ensure a less than significant construction short term indirect impact to vegetation and special-status plants.

Hunt & Associates
 Biological Consulting Services
 5290 Overpass Road, Suite 108
 Santa Barbara, California 93111
 (805) 967-8512 (phone) (805) 967-4633 (fax)
 e-mail: anniella@verizon.net

Long-Term Indirect Impacts—Sensitive Vegetation and Special-Status Plants: Increased presence of domesticated animals, trash and debris, and human trampling could result in long-term indirect effects to sensitive riparian habitats and possibly special-status plant species that may be adjacent to or crossed by trails. This would represent a substantial adverse effect on sensitive natural communities identified in local or regional plans and would be potentially significant. Changes or alterations have been required in, or incorporated into the Project to ensure a less than significant long term indirect impact on sensitive natural communities

Direct Impacts to Special -Status Plants: The Project would result in direct impacts to the Catalina mariposa lily and other special-status plants that may be in the various project element footprints. Impacts to these species are considered potentially significant but mitigable. Changes or alterations have been required in, or incorporated into the Project to ensure the project results in a less than significant direct impact to special-status plants

Direct Impacts to Nesting Birds: The Project has the potential to cause direct impacts to nesting birds. However, the proposed mitigation measures are adequate to ensure any direct impact to nesting birds is reduced to less than significant levels.

Direct Impact to California Gnatcatchers: The DEIR disclosed that it was unlikely that California gnatcatchers would be present in the Plan area. Subsequently, gnatcatcher surveys were conducted in spring 2010 within portions of Corral Canyon Park and the Malibu Bluffs Conservancy Property that make up the main camping areas under the Project. This single-pass California gnatcatcher survey was negative, and California gnatcatcher is considered to have low potential to nest on site or disperse through the Plan area (See, FEIR Appendix-MRA 9). Nevertheless, mitigation is proposed to ensure any direct impact on the California gnatcatcher is reduced to a less than significant level.

Short-Term Indirect Impact to Breeding Birds: The Project has the potential to cause short-term construction-related noise and human presence impacts to breeding birds which can result in the disruption of foraging, nesting, and reproductive activities. Mitigation is proposed to ensure any indirect impact to breeding birds is reduced to less than significant levels.

Long-Term Indirect Impacts to Special-Status Wildlife: The Project has the potential to cause long-term indirect impacts to special-status wildlife that would be potentially significant. Changes or alterations have been required in, or incorporated into the Project to ensure that long-term indirect impact to special-status wildlife are less than significant.

Indirect Impacts on Wildlife Corridors and Habitat Linkages: The Project has the potential to cause indirect impacts on wildlife corridors and habitat linkages. However, changes to project configuration, such as reduction and/or clustering of campsites, as well as implementation of mitigation measures during construction and habitat restoration

Hunt & Associates
Biological Consulting Services
5290 Overpass Road, Suite 108
Santa Barbara, California 93111
(805) 967-8512 (phone) (805) 967-4633 (fax)
e-mail: anniella@verizon.net

following construction, potential impacts to wildlife corridors and habitat linkages will be reduced to less than significant levels.

Direct Impacts to Native Trees: The Project will result in direct impacts (removal) of native trees. This impact is considered potentially significant. Proposed mitigation measures, coupled with habitat restoration, will ensure that impacts to native trees and their associated plant communities are reduced to less than significant levels.

Indirect Impact to Native Trees: The Project has the potential to cause a significant indirect impact on native trees during construction, including cutting of roots, tree damage, and other impacts. Adequate mitigation has been proposed to reduce or avoid indirect impacts to native trees such that this impact has been reduced to less than significant levels.

Review of Comments on the Draft EIR and Responses. In addition, I have reviewed the Comment Letters on the DEIR received from the following persons/organizations that deal with biological resources:

- *Shelley Luce, Bay Restoration Commission, undated*
- *Scott Harris, CA Department of Fish and Game, dated 16 March 2010*
- *Sandra Albers, Resource Conservation District of the Santa Monica Mountains, dated 29 March 2010*
- *James Repking, Cox, Castle & Nicholson, LLP, dated 22 March*
- *Vic Peterson, City of Malibu, dated 22 March 2010*
- *Deanna Christensen, CA Coastal Commission, dated 13 April 2010*
- *Steven Amerikaner, Brownstein, Hyatt, Farber & Schreck, LLP, dated 22 March 2010*

I have reviewed the Dudek responses to the above comments provided in Sections 16.2 and 16.3 of the FEIR, Volume IV, and generally agree with the responses and conclusions reached therein.

Conclusions. Based on my review, the biological resources analysis and discussion is consistent with published guidelines for analyzing issues pertaining to biological resources under the California Environmental Quality Act (CEQA). The analysis was generally performed in accordance with professional standards of practice. The EIR utilizes the significance criteria suggested by the CEQA Guidelines Appendix G, which is appropriate for a recreational land use project. The methodology utilized to identify

Hunt & Associates
 Biological Consulting Services
 5290 Overpass Road, Suite 108
 Santa Barbara, California 93111
 (805) 967-8512 (phone) (805) 967-4633 (fax)
 e-mail: anniella@verizon.net

potential impacts associated with implementation of the Proposed Plan and other alternatives is appropriate, reasonable, technically sound, and generally consistent with professional standards of practice. The discussion of impacts is consistent with the results of the impact analysis and the mitigation measures presented in the FEIR to protect biological resources are appropriate, feasible, and effective. Responses to public comments are reasonable and consistent with the analyses and discussions.

The FEIR, including the MRA, adequately identifies project-related impacts to biological resources and has formulated mitigation measures that will reduce those impacts to less than significant levels. My general impression, after reviewing all of the material, is that the MRA project will increase public awareness and appreciation of the biological resources in this part of the Santa Monica Mountains while providing adequate protection of those resources.

Sincerely,

A handwritten signature in black ink, appearing to read "Lawrence E. Hunt". The signature is fluid and cursive, with a large initial "L" and "H".

Lawrence E. Hunt

attachment: resume

Hunt & Associates
Biological Consulting Services
5290 Overpass Road, Suite 108
Santa Barbara, California 93111
(805) 967-8512 (phone) (805) 967-4633 (fax)
e-mail: anniella@verizon.net

**ATTACHMENT: RESUME FOR
LAWRENCE E. HUNT**

Hunt & Associates
Biological Consulting Services
5290 Overpass Road, Suite 108
Santa Barbara, California 93111
(805) 967-8512 (phone) (805) 967-4633 (fax)
e-mail: anniella@verizon.net

LAWRENCE E. HUNT

**Hunt & Associates Biological Consulting Services
5290 Overpass Road, Suite 108
Santa Barbara, California 93111**

**Phone: (805) 967-8512 Fax: (805) 967-4633
e-mail: anniella@verizon.net**

Title	Consulting Biologist
Expertise	Vertebrate Zoology and Ecology Terrestrial and Aquatic Endangered Species Surveys Conservation Biology and Habitat Conservation Plans Habitat Restoration and Reclamation Impact Assessment, Mitigation Planning and Implementation, and Construction Monitoring Spatial Statistics and Biostatistics Lecturer in Conservation Biology and Endangered Species Mgmt, University of California

Statement of Qualifications. Lawrence Hunt is a professional biologist and independent consultant with over 30 years of experience with rare, threatened and endangered plant and wildlife species and their habitats in the western United States, Mexico, and Chile, including many of the rare, threatened, and endangered plants, crustaceans, fish, amphibians, reptiles, birds, and mammals found in central and southern California. Hunt & Associates BCS has extensive experience includes project design and management, budget management, biological resource surveys, biological assessments, habitat evaluations, EIR/EISs, habitat restoration plans, habitat conservation plans, statistical data analysis, local, state, and federal resource agency consultations, impact assessment, mitigation analysis, and construction monitoring. Clients include planning departments for city and county governments, state and federal resource management agencies, non-governmental conservation organizations, and private corporations and individuals. Hunt & Associates BCS has specialized academic and research experience in the fields of herpetology, mammalogy, and biostatistics related to the biogeography and conservation of biodiversity in central and southern California. Between 1996 and 2003, Lawrence Hunt co-taught graduate-level courses in Conservation Biology and Endangered Species Management at the University of California-Santa Barbara.

Hunt & Associates BCS has been involved in over 800 projects since 1983 to conduct and/or coordinate baseline wildlife surveys, T&E species surveys, state and federal resource agency consultation, survey design and data analysis, impact analysis, mitigation design and implementation, habitat restoration design and implementation, and permit compliance monitoring in central and southern California and southern Nevada.

Experience with Anadromous Salmonids and Other Native Freshwater Fishes. Lawrence E. Hunt has over 25 years of consulting and field experience with anadromous salmonids and resident freshwater fishes in central and southern California, including pre-construction surveys,

Hunt & Associates
Biological Consulting Services
5290 Overpass Road, Suite 108
Santa Barbara, California 93111
(805) 967-8512 (phone) (805) 967-4633 (fax)
e-mail: anniella@verizon.net

mitigation development, capture/relocation efforts, and construction monitoring. Sample projects include:

- ***NMFS Steelhead Recovery Plan (2007-2009):*** Lawrence E. Hunt, under contract to the National Marine Fisheries Service (NMFS), wrote the *Threats Analysis* and *Recovery Actions* sections for the Recovery Plan for the South-Central California and Southern California ESUs of the southern steelhead (*Oncorhynchus mykiss*). This major effort identified and ranked the importance of various anthropogenic and natural risk factors that are affecting steelhead reproduction and migration in 75 coastal streams and rivers from the Monterey Bay southward to the Mexican border, including San Simeon Creek, then developed a series of stream-specific recovery actions to restore these watersheds so they can support viable steelhead populations. Several field surveys of San Simeon Creek were conducted, including the proposed project area.
- ***Matilija Dam Ecosystem Restoration Project (2007-present):*** Hunt & Associates BCS, under contract with the County of Ventura Public Works Agency (Watershed Protection District), performed pre-project surveys for southern steelhead, arroyo chub, partially-armored threespine stickleback, California red-legged frog, southwestern pond turtle, and two-striped garter snake along 17 miles of Matilija Creek and the upper main stem of the Ventura River in Ventura County, mapped special-status species locations, then monitored an intensive effort to eradicate giant reed (*Arundo donax*) and other exotic invasive vegetation from over 1,500 acres of floodplain and riverine habitats along these reaches. This effort identified a number of aquatic habitats for steelhead and arroyo chub and intensively monitored these sites during vegetation treatment cycles to avoid impacts to the special-status species.
- ***Alisal Creek Bank Stabilization and Bridge Repair Project (2005-present):*** Hunt & Associates BCS conducted pre-construction surveys and conducted construction monitoring for the duration of this project in Santa Barbara County near Solvang. Work activities included the capture and relocation of southern steelhead, arroyo chub, partially-armored threespine stickleback, California red-legged frog, and southwestern pond turtle, as well as several species of non-native fishes and bullfrogs, using blocking nets to isolate the work area during dewatering and construction.
- ***Santa Ynez River Crossing Project (2009):*** Hunt & Associates BCS, in conjunction with the California Department of Fish and Game and NMFS, conducted pre-construction surveys and developed and implemented a capture-relocation plan for southern steelhead, resident rainbow trout, arroyo chub, and partially-armored threespine stickleback on the main stem of the Santa Ynez River near Buellton in Santa Barbara County. Blocking nets were used to isolate the work area in order to dewater the reaches and install a new at-grade river crossing, fishes inside the work area were captured and relocated downstream, and the blocking nets were removed after the instream work was completed. The effort took two weeks and resulted in no fish mortality.

Hunt & Associates
Biological Consulting Services
5290 Overpass Road, Suite 108
Santa Barbara, California 93111
(805) 967-8512 (phone) (805) 967-4633 (fax)
e-mail: anniella@verizon.net

- ***Mobil M-70 Crude Oil Pipeline Installation Project (2007-2008):*** Lawrence E. Hunt, subcontracting to ExxonMobil Corporation, conducted surveys and implemented mitigation monitoring for resident rainbow trout, arroyo chub, and unarmored threespine stickleback (federally-endangered species) along a one mile reach of the Santa Clara River in Los Angeles County before and during directional drilling and installation of a 16-inch crude oil pipeline beneath the riverbed. Work involved capture, measurement, and relocation of fishes from river reach above pipeline bore.
- ***San Simeon Road Bridge Replacement Project (2002-2004):*** Lawrence E. Hunt, subcontracting to Garcia & Associates, conducted special-status species surveys for southern steelhead, California red-legged frog, southwestern pond turtle, two-striped garter snake, and various birds in support of the Biological Evaluation for the NEPA/CEQA documents for this project. All of these species were observed during these surveys and the document presented a number of mitigation recommendations to avoid or minimize project-related impacts.
- ***Las Pilitas Road Bridge Replacement Project (1998-2000):*** Lawrence E. Hunt, subcontracting to Garcia & Associates, conducted special-status species surveys for resident rainbow trout, California red-legged frog, southwestern pond turtle, two-striped garter snake, and various bird and bat species in support of the Biological Evaluation for the NEPA/CEQA documents for this project in San Luis Obispo County. All of these species were observed during these surveys and the document presented a number of mitigation recommendations to avoid or minimize project-related impacts.
- ***Salinas Reservoir Expansion Project (1995-1998):*** Lawrence E. Hunt directed electro-fishing and snorkel surveys for resident rainbow trout and up to 10 other species of native and introduced fishes in the upper Salinas Reservoir and a 7-mile long reach of the main stem of the Salinas River at the upper end of the reservoir in San Luis Obispo County. This effort was aimed at determining species richness, relative abundance, and habitat preferences of these fishes so as to predict the impact of raising the elevation of Salinas Dam and increased reservoir impoundment.
- ***Gibraltar Reservoir Strengthening Project (1992-1996):*** Hunt & Associates BCS developed and implemented a plan to capture and relocate aquatic species inhabiting the 15-acre plunge pool at the base of Gibraltar Dam on the upper Santa Ynez River (Santa Barbara County) in preparation of dewatering this feature. Hunt and colleagues captured and successfully relocated resident rainbow trout, arroyo chub, partially-armored threespine stickleback, and a number of non-native fish species, in addition to 150 southwestern pond turtles, and at least 15 California red-legged frogs. The pond turtles were individually marked and followed for 18 months after relocation to track their movements. This effort required a combined capture strategy, involving blocking nets, long-handled dip-nets, seines, and snorkeling to capture these animals.

Hunt & Associates
Biological Consulting Services
5290 Overpass Road, Suite 108
Santa Barbara, California 93111
(805) 967-8512 (phone) (805) 967-4633 (fax)
e-mail: anniella@verizon.net

- ***Level (3) Fiber Optic Transmission Project (2001-2003):*** Lawrence E. Hunt was the Project Biologist/Resource Specialist and Environmental Compliance Coordinator to the County of Santa Barbara Planning and Development Department on the Level (3) Communications Fiber Optic Transmission Project across western and southern Santa Barbara County. The project crossed at least 50 seasonal and perennial drainages within 0.25 miles of the ocean and involved not only the lower reaches of these streams, but also their terminal lagoons, when present. He conducted special-status species surveys for southern steelhead, resident rainbow trout, tidewater goby, California red-legged frog, southwestern pond turtle, and two-striped garter snake, in addition to writing CEQA documents and supervising construction monitoring.
- ***Other Relevant Project Experience:***

Oil and Gas Transmission:

- *1993-1997:* Project biologist to Dames & Moore, Inc. on the 1,200-mile long Kern River Gas Transmission Project through Kern County, southern Nevada, and southwestern Utah. Responsibilities included field surveys, biological constraints analyses, impact assessments, mitigation assessment, and construction monitoring for CEQA and NEPA permitting documents.
- *1994-1998:* Project biologist to Pacific Pipeline, LLC on the 175-mile long Pacific Pipeline Project crude oil pipeline in southern Kern County to southern Los Angeles County; included at least 60 miles through Angeles National Forest. Responsibilities included habitat evaluation and mapping, pre-construction surveys for special-status plant and animal species, intensive consultation with Tejon attorneys and land managers regarding survey results, and implementation of mitigation measures during pipeline construction.
- *1996-1998:* Senior Environmental Scientist to the Chilean equivalent of the U.S. Department of the Interior for the 1,500-mile long *Proyecto Gasoducto Transandino* across Argentina and Chile. Responsibilities included evaluating proposed routes through the Andes from the pampas in Argentina to a coastal region near Santiago, Chile, identifying and classifying project-related impacts, devising mitigation recommendations, and developing permit compliance plans for the project.
- *1999-2000:* Project biologist to ENSR Corporation on the Thermo Eco-Tek Natural Gas Pipeline and Cogeneration Facility Project in southwestern San Bernardino County and northern Orange County. Responsibilities included pre-construction surveys, constraints analyses, impacts assessments, and preparation of environmental documents for CEQA permitting.
- *2003-2006:* Project biologist to ENSR Corporation responsible for developing the Southern California Gas Company (Sempra Energy Co.) Programmatic Biological Assessment for Operations and Maintenance in Madera, Fresno, Tulare, Kern, San Luis Obispo, Santa Barbara, Ventura,

Hunt & Associates
 Biological Consulting Services
 5290 Overpass Road, Suite 108
 Santa Barbara, California 93111
 (805) 967-8512 (phone) (805) 967-4633 (fax)
 e-mail: anniella@verizon.net

Los Angeles, Orange, western Riverside, and western San Bernardino counties. Responsibilities included analyses of biological resources along numerous existing pipeline routes, assessing impacts, and proposing mitigation to reduce or avoid potential impacts to resources during pipeline operation and maintenance for CDFG, USFWS, and CPUC permit compliance.

- *2002-present:* On-call biologist to ENSR Corporation for various ExxonMobil Corporation pipeline and receiving site projects in Kern and Tulare counties responsible for species surveys, biological assessments, and construction monitoring.
- *Offshore LNG Re-Gasification Facilities: 2004-present:* One of two project biologists to ENSR Corporation on the Woodside Liquefied Natural Gas Project in the Southern California Bight off Los Angeles County and adjacent onshore receiving and transmission sites in coastal Los Angeles and Orange counties. Responsibilities include evaluation of proposed and alternative routes in Los Angeles and Orange counties, biological constraints analyses, impact assessments, and mitigation recommendations for CEQA and NEPA permitting documents.
- *Wind Energy Transmission: 2006-2007:* Project biologist to Aspen EG on the Tehachapi/Antelope Valley PdV Wind Energy Project in the Tehachapi Mountains and Antelope Valley of Kern and Los Angeles counties. Biological resources, project-related impacts (especially impacts to migratory birds and bats), and proposed mitigation recommendations were evaluated for the Antelope-Pardee EIR/EIS.
- *USFWS Habitat Conservation and Species Recovery Plans:*
 - *1993-2000:* One of several contributing biologists to the Kern County Valley Floor HCP for Dames & Moore, Inc. and County of Kern Planning and Development Department. Responsible for field surveys, report preparation, and mitigation recommendations for a number of federal- and state-sensitive plants and wildlife. The primary project area was Kern County, but species occurrences in the surrounding counties also were evaluated.
 - *1998-2000:* Black legless lizard (*Anniella pulchra nigra*) Status Review for USFWS, Monterey County.
 - *1998-2001:* One of several contributing biologists to the USFWS Recovery Plan for the California Red-legged Frog.
 - *2002-present:* Scientific Committee - California Tiger Salamander Recovery Plan (U.S. Fish and Wildlife Service).
 - *2006-present:* Amphibian Specialist - County of Santa Barbara Regional Conservation Strategy (Habitat Conservation Plan) for the Santa Barbara County Distinct Population Segment of the California Tiger Salamander.

- *CalTrans Highway Widening/Construction: 1989-1995:* Project biologist to Dames & Moore, Inc. on three California Department of Transportation projects to widen and/or construct roadways in Madera, Fresno, and Kern counties. Duties included focused field surveys, impacts assessment, and mitigation recommendations for CEQA and NEPA documents, including sampling and rating over 250 vernal pools and vernal pool complexes for special-status plants, crustaceans (fairy shrimp), fishes, and amphibians.
- *Department of Water Resources:*
 - *2003-2005:* Project biologist to Aspen EG to conduct special-status wildlife surveys, focusing on the arroyo toad (*Bufo californicus*), and prepared impact assessments for the California Department of Water Resources Check 66 Replacement Project, southwestern San Bernardino County (Mojave River).
 - *2004 and 2006:* Project biologist to Aspen EG to conduct field surveys and impact assessment/mitigation recommendations for the California Department of Water Resources Tehachapi Embayment Project, south slopes of the Tehachapi Mountains and adjacent Antelope Valley in Kern and Los Angeles counties.

Academic Background Ph.D. Candidate, Evolutionary Ecology, Univ. California, Santa Barbara
 M.S., Ecology and Systematics (Herpetology), Univ. Kansas-Lawrence
 B.S., Vertebrate Zoology (Herpetology), Univ. California-Berkeley

Citizenship United States

International Consulting/Research Experience Mexico, England, Scotland, Chile, Portugal

Professional Affiliations: American Society of Ichthyologists and Herpetologists; Society for the Study of Amphibians and Reptiles; American Society of Zoologists; Sigma Xi Honorary Scientific Society

Peer-Reviewed Publications

1980. Hunt, L.E. and J. Ottley. Geographic distribution: *Crotalus viridis helleri*. Herpetological Review, 12(2): 65.
1982. Hunt, L.E. Reproduction and feeding in *Eridiphas slevini* (Serpentes:Colubridae). Herpetological Review, 13(1): 8-9.
1983. Hunt, L.E. Book Review: An annotated bibliography of the desert tortoise, *Gopherus agassizi*. Herpetological Review, 14(1): 25.
1983. Hunt, L.E. A nomenclatural rearrangement of the genus *Anniella* (Sauria: Anniellidae). Copeia 1983(1): 79-89.
1984. Seigel, R.A., L.E. Hunt, et al. (eds.) Contributions to Vertebrate Zoology and Systematics: A Tribute to Henry S. Fitch. Spec. Publ. Mus. Nat. Hist. Univ. Kansas. No. 10. 278 pp.

Hunt & Associates
 Biological Consulting Services
 5290 Overpass Road, Suite 108
 Santa Barbara, California 93111
 (805) 967-8512 (phone) (805) 967-4633 (fax)
 e-mail: anniella@verizon.net

1984. Hunt, L.E. Geographic patterns of morphological variation in the lizard genus *Anniella*. Masters Thesis. Univ. of Kansas, Lawrence. 302 pp.
1985. Schultze, H.P., L.E. Hunt and J. Chorn. Type and figured specimens of fossil vertebrates in the collections of the University of Kansas Museum of Natural History, Part II: Fossil amphibians and reptiles. Misc. Publ. Mus. Nat. Hist. Univ. Kansas No. 77. 66 pp.
1985. Fleischer, R., M. Murphy and L.E. Hunt. Clutch size increase and intraspecific brood parasitism in the yellow-billed cuckoo (*Coccyzus americanus*). *Wilson Bull.* 97(1): 125-127.
1993. Hunt, L.E. Origin, maintenance and land use of aeolian sand dunes in the Santa Maria Basin, California. Prep. for The Nature Conservancy and U.S. Air Force, Vandenberg AFB. 72 pp.
1994. Hunt, L.E. Capture, relocation and monitoring of a southwestern pond turtle (*Clemmys marmorata pallida*) population on the upper Santa Ynez River, Santa Barbara County, California; Gibraltar Dam Strengthening Project. Prepared for the City of Santa Barbara. U.S. Forest Service and Woodward-Clyde Consultants. 135 pp.
1997. Hunt, L.E. Geostatistical modeling of species distributions: Implications for biogeographical and ecological studies, pp. 427-438, In: Soares, A. et al (eds.). *Geostatistics for Environmental Applications*. Kluwer Academic Publishers, London. 556 pp.
2009. Hunt, L.E. *Anniella*, *Anniella pulchra*, *Anniella geronimensis* species accounts. *Catalogue of American Amphibians and Reptiles*. Soc. Study Amphibians and Reptiles. 35 pp.

Grants and Awards

1976. National Science Foundation, Student-Originated-Studies Grant
- 1980-1982. Phi Sigma Biology Honor Society, Univ. Kansas
1982. Regents Scholarship, UC-Santa Barbara
1984. Masters Thesis, with honors, Univ. Kansas
1985. National Audubon Society, Research Grant
1987. Chancellor's Advisory Committee, UC Natural Reserve System
1988. Storrer Award, Amer. Soc. of Ichthyologists and Herpetologists
1988. Academic Instructional Grant, UC-Santa Barbara
1989. Graduate Dissertation Fellowship, UC-Santa Barbara
1989. Invited Speaker, First World Congress in Herpetology, Canterbury, England
1990. The Nature Conservancy, Research Grant
- 1994-present. UCSB Academic Development Grant, Patagonia, Inc.
1996. California Mining Association, Excellence in Reclamation Award
1996. Invited Speaker, First European Conference on Geostatistics, Lisbon, Portugal
1997. Invited Speaker, Society for Ecological Restoration-Dune Guild, San Luis Obispo, CA
1998. Invited Speaker, Second European Conference on Geostatistics, Valencia, Spain
2001. Invited Speaker, Santa Ynez Natural History Association, Santa Ynez, CA.
2002. OSPR Grant, Endangered Species Research Fund, Calif. Dept. Fish and Game
2003. Invited Speaker, UC-Santa Barbara Habitat Restoration Group, UCSB
2003. Invited Speaker, Workshop, Threatened and Endangered Amphibians and Reptiles of Southern California, Wildlife Society and Bureau of Land Management, Riverside, CA
2005. U.S. Fish and Wildlife Service Research Grant, Ventura Field Office, Ventura, CA.
2009. U.S. Fish and Wildlife Service Research Grant, Ventura Field Office, Ventura, CA.
2009. County of Ventura Habitat Restoration Monitoring Grant, Ventura, CA

Certification: Horizontal Directional Drilling Inspector, California Dept. of Transportation (2001)

Hunt & Associates
 Biological Consulting Services
 5290 Overpass Road, Suite 108
 Santa Barbara, California 93111
 (805) 967-8512 (phone) (805) 967-4633 (fax)
 e-mail: anniella@verizon.net

Permits: U.S. Fish and Wildlife Service 10(a)1(a) handling permits for: California tiger salamander, California red-legged frog; southern steelhead, fairy shrimp
California Department of Fish and Game – Scientific Collecting Permit.

leh: 26feb10

Hunt & Associates
Biological Consulting Services
5290 Overpass Road, Suite 108
Santa Barbara, California 93111
(805) 967-8512 (phone) (805) 967-4633 (fax)
e-mail: anniella@verizon.net