

12-31-2008

Lake Mead National Recreation Area Monitoring and Evaluation of Sensitive Wildlife: Quarterly Progress Report, Period Ending December 31, 2008

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Rees, M. N. (2008). Lake Mead National Recreation Area Monitoring and Evaluation of Sensitive Wildlife: Quarterly Progress Report, Period Ending December 31, 2008. 1-13.

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QUARTERLY PROGRESS REPORT

University of Nevada, Las Vegas
Period Ending December 31, 2008

Cooperative Agreement Number: H8R07060001
Task Agreement Number: J8R07060012

Monitoring and Evaluation of Sensitive Wildlife at
Lake Mead National Recreation Area

Executive Summary

Project 1. Relict Leopard Frog Monitoring, Management, and Research

- All milestones and deliverables associated with the MSHCP project are on schedule
- Completion of 2008 monitoring survey efforts
- Coordination is ongoing to identify potential translocation sites, including assisting efforts to identify a potential site in the western Grand Canyon
- RLFCT meeting hosted and minutes of meeting drafted
- Annual report provided to RLFCT, final draft in review
- Sampling for the amphibian chytrid fungus conducted at many sites

Project 2. Bald Eagle Winter Monitoring and Evaluation

- All MSHCP milestones and deliverables are on schedule
- Planning and coordination of the 2009 Eagle Count conducted
- Pre-survey completed of one of the standard survey routes

Project 3. Peregrine Falcon Monitoring and Evaluation

- The MSHCP projects are on schedule for all milestones and deliverables
- Conceptual models provided to Clark County
- Efforts continue to monitor off-season territory behavior at several sites

Project 4. Assessment of Six Covered and Three Evaluation Bird Species

- Project is on schedule for all associated MSHCP milestones and deliverable
- Quality assurance completed for data from 2008 intensive area surveys
- Habitat assessments of the four 2008 intensive survey areas completed
- Surveys continuing at one site to better understand Le Contes' thrasher breeding activity
- Thrasher habitat modeling ongoing; consultations held with UNLV biostatisticians and with a habitat modeling specialist at USGS
- Compilation of historical location data for targeted songbird species continuing and nearing completion. Planning for targeted surveys initiated.

Project 5. Desert Tortoise Monitoring and Management.

- Efforts for this project have been completed under this task agreement (as modified)

Project 6. Shorebird Monitoring on Lakes Mead and Mohave

- Twenty-four surveys were conducted on eight intensively monitored sites on Lakes Mead and Mohave

Project 7. Desert Bighorn Sheep Habitat Use Monitoring in Relation to Highway Development.

- Data processing and field components completed for this project

- A meeting was conducted by Mr. Haley which included personnel from NPS, UNLV/PLI, USGS and NDOW to discuss potential products and further efforts

Program Activities

The task agreement was awarded to the University of Nevada, Las Vegas (UNLV) on October 1, 2006. Research, monitoring, and management activities are conducted primarily by UNLV Public Lands Institute (PLI) employees. During the quarter ending on December 31, 2008, activities that have occurred toward meeting actions in the statement of work are described below.

Note that several of the projects cover agreements between Clark County and Lake Mead National Recreation Area (LAME) under the Multiple Species Habitat Conservation Plan (MSHCP). To assist the NPS with reporting requirements and in consultation with Mr. Ross Haley (Task Agreement ATR) and Mr. Kent Turner (LAME Resource Management Chief), the format for reporting on several of these projects has been modified to match Clark County quarterly report requirements.

Hiring and Student Opportunities

We have continued an hourly contract for an undergraduate student to assist part-time with expanded efforts on songbird surveys. The student also assists researchers with data entry and field work associated with the other projects under this task agreement. In addition, a graduate student has been funded part-time (10% effort) to assist with the Relict Leopard Frog project.

Project 1. Relict Leopard Frog Monitoring, Management and Research

The MSHCP project titled 'Relict Leopard Frog Monitoring and Management' (2005-NPS-476-P) was initiated on September 4, 2007. The following information has been formatted to meet Clark County quarterly report requirements.

QUESTION 1: What did you accomplish during this reporting period? How did these accomplishments help you reach the goal of your project? If relevant, what indicators or benchmarks were used to determine your progress?

This quarterly report describes milestones and deliverables as identified and numbered in the Annual Timeline and Work Plan for this project. All milestones and deliverables for this quarter have been accomplished as summarized below.

Milestone 9. End of (2008) Monitoring Survey Field Season

Monitoring surveys for 2008 have been completed. Efforts during this quarter included a total of 30 diurnal surveys and 13 nocturnal surveys at 14 sites, including expanded efforts for egg mass surveys to further understand breeding phenology.

Deliverable 7. Quarterly Progress Report

A quarterly report summarizing efforts through September 30, 2008 was submitted to Clark County.

Deliverable 8. Host Relict Leopard Frog Conservation Team Meeting

Relict Leopard Frog Conservation Team (RLFCT) meeting was hosted at Lake Mead National Recreation Area on December 3, 2008. Minutes of this meeting have been drafted.

Deliverable 9. Written Annual Report to RLFCT of Conservation Actions

During the RLFCT meeting this quarter, a written report summarizing efforts conducted under this project was provided to meeting participants. A final version, including efforts through the end of December 2008, has been drafted and is in final review.

Other activities

The following efforts fall under Milestones 5 and 19 to assist with efforts to identify and establish new sites for translocations. Representatives from RLFCT, including UNLV personnel, have been assessing areas in the western Grand Canyon for potential sites to translocate Relict Leopard Frogs. A field visit was conducted to potential sites on October 12, 2008, to determine the suitability of habitat and the presence of invasive potential predators/competitors before initiating further efforts.

In addition, sampling of Relict Leopard Frogs for the amphibian chytrid fungus was conducted at many of the sites this quarter.

QUESTION 2: What, if any, problems were encountered? Briefly describe those problems and how they were dealt with.

No problems were encountered this quarter.

QUESTION 3: What, if any, proposed activities were not completed? Briefly describe those activities, the reasons they were not completed and your plans for carrying them out.

Efforts to estimate populations at Rogers Spring have been suspended because no frogs were encountered despite additional field surveys this spring. The site received population augmentation this summer, although no frogs were encountered at this site during the nocturnal survey this quarter.

QUESTION 4: What is the calculated percent of work completed?

There are approximately 14 quarters (some partial) that constitute this project and 6 have been completed; therefore, approximately 43% of the project has been completed.

QUESTION 5: Do you foresee any upcoming problems with future project activities? If so, how do you propose to overcome those problems?

Identification of appropriate translocation sites within the Potential Management Zone for the Relict Leopard Frog has been a continuing challenge because of the limited availability of appropriate sites. Coordination and collaboration through the RLFCT with cosignatory state and federal agencies to the Conservation Assessment Strategy is continuing.

QUESTION 6: Is there anything else you want to tell the DCP about this project?

No.

QUESTION 7: What was produced during the reporting period?

1. Quarterly report (Deliverable 7)
2. Field observations on the status of natural and experimental populations (Milestone 9)
3. Assistance provided towards the identification and compliance of future translocation sites (progress towards Milestone 19)
4. Hosted RLFCT meeting with minutes drafted (Deliverable 8)
5. Written annual report of conservation actions provided to RLFCT, final draft is in review (Deliverable 9)

Please report on the status of each Milestone and Deliverable, indicate whether they are not started, in progress, or completed and provide comments on the status as necessary:

Milestone 1.	Contract Award and Mobilization: completed
Milestone 2.	Project Kick-off and Training Meeting: completed
Milestone 3.	Start of Coordination of Habitat Management Activities: completed
Milestone 4.	Start of Collaboration and Oversight of Population Estimation at Targeted Springs: completed
Milestone 5.	Start of Assessment and Coordination of Compliance for Future Translocation Sites: completed (progress continuing)
Milestone 6.	Start of Translocation Program (2008) Field Season: completed
Milestone 7.	Start of (2008) Monitoring Survey Field Season: completed
Milestone 8.	End of (2008) Translocation Program Field Season: completed
Milestone 9.	End of (2008) Monitoring Survey Field Season: completed
Milestone 10– 21:	Not initiated
Deliverable 1.	Quarterly Progress Report: completed
Deliverable 2.	Annual Work Plan and Detailed Timeline: completed
Deliverable 3.	Data Management Plan: completed
Deliverable 4.	Quarterly Progress Report: completed
Deliverable 5.	Quarterly Progress Report: completed
Deliverable 6.	Quarterly Progress Report: completed
Deliverable 7.	Quarterly Progress Report: completed
Deliverable 8.	Host RLFCT meeting: completed
Deliverable 9:	Written Annual Report to RLFCT of Conservation Actions: completed
Deliverable 10:	Annual Project Review Presentation: completed
Deliverable 11:	Quarterly Progress Report: in progress
Deliverable 12–34:	Not initiated

Project 2. Bald Eagle Winter Monitoring and Evaluation

A summary of products for this project as described in the task agreement are provided below. The milestones and deliverables described for this project are associated with the MSHCP projects titled, ‘Bald Eagle Monitoring’ (2005-NPS-476-P) and the associated project ‘Bald Eagle Modeling’ (2005-NPS-609B-P). These projects were initiated on January 2, 2008. The following information has been formatted to match the quarterly report requirements of the Clark County MSHCP.

QUESTION 1: What did you accomplish during this reporting period? How did these accomplishments help you reach the goal of your project? If relevant, what indicators or benchmarks were used to determine your progress?

This quarterly report describes milestones and deliverables as identified and numbered in the Annual Timeline and Work Plan for the project, Bald Eagle Monitoring. Also included herein is reporting on milestones and deliverables for the associated project, Bald Eagle Modeling (2005-NPS-609B-P). All milestones and deliverables scheduled for this quarter have been accomplished, as summarized below.

Deliverable 6. Quarterly Progress Report

A quarterly report summarizing efforts for the period ending on September 30, 2008 was submitted to Clark County.

Progress on Milestone 4. Conduct 2009 Bald Eagle Count

Planning and coordination for the 2009 Bald Eagle winter count was conducted this quarter. The date for the count has been set for January 7, 2009, with a backup survey day scheduled for January 8, 2009. These dates fall within the national survey period. Qualified and trained Lead Observers, Boat Operators, and Data Recorders have been recruited and assigned to the eight survey routes. Eight boats have been organized for use during the counts, and qualified personnel from other agencies have agreed to participate in the count (these agencies include the BOR, USGS, and NDOW). A training for Data Recorders has been scheduled for January 5. As part of our efforts to assess variation in numbers of eagles observed during counts, we have planned pre- and post-surveys of the Overton route. Towards this effort, a pre-survey of the Overton route was conducted on December 19, 2008.

Progress on Deliverables 3 for Project 609B – Annual Project Data

Data associated with preliminary habitat modeling and assessment has been organized for transfer to the County.

QUESTION 2: What, if any, problems were encountered? Briefly, describe those problems and how they were dealt with?

No problems were encountered during this quarter.

QUESTION 3: What, if any, proposed activities were not completed? Briefly describe those activities, the reasons they were not completed and your plans for carrying them out.

As defined in the Annual Timeline, all scheduled activities were completed this quarter.

QUESTION 4: What is the calculated percent of work completed?

This project has approximately 12 quarters, and 4 quarters have been completed; therefore, approximately 33% of the project has been completed.

QUESTION 5: Do you foresee any upcoming problems with future project activities? If so, how do you propose to overcome those problems?

No problems are foreseen at this time.

QUESTION 6: Is there anything else you want to tell the DCP about this project?

No.

QUESTION 7: What was produced during the reporting period?

1. Quarterly Progress Report (Deliverable 6).
2. Scheduling, planning and coordination for the upcoming Bald Eagle winter count (progress towards Milestone 4).
3. Organized data associated with preliminary modeling efforts for transfer to County.

Please report on the status of each Milestone and Deliverable, indicate whether they are not started, in progress, or completed and provide comments on the status as necessary:

For Project, 2005-NPS-540-P

Milestone 1.	Contract Awards and Mobilization: completed
Milestone 2.	Project Kickoff & Training Meeting: completed
Milestone 3.	Conduct 2008 Bald Eagle Count: completed
Milestone 4.	Conduct 2009 Bald Eagle Count: in progress
Milestone 5.	Not initiated
Deliverable 1.	Work Plan: completed
Deliverable 2.	Detailed Timeline: completed
Deliverable 3.	Data Management Plan: completed
Deliverable 4.	Quarterly Report: completed
Deliverable 5.	Quarterly Report: completed
Deliverable 6.	Quarterly Report: completed
Deliverable 8.	Annual Project Review and Presentation: completed
Deliverable 7,9–25:	Not initiated

For Project, 2005-NPS-609B-P

Milestone 1.	Contract Awards and Mobilization: completed
Milestone 2:	Not initiated
Deliverable 1.	Detailed Timeline: completed
Deliverable 2.	Data Management Plan: completed
Deliverable 3.	Annual Project Data: in progress
Deliverable 5.	Habitat Suitability Model: in progress
Deliverable 6.	Habitat Suitability Map: in progress
Deliverable 8.	Verbal Report (if requested): completed
Deliverable 4,7:	Not initiated

Project 3. Peregrine Falcon Monitoring and Evaluation

The MSHCP projects titled ‘Peregrine Falcon Monitoring and Evaluation (*Falco peregrinus*)’ (2005-NPS-475-P) and the associated project ‘Peregrine Falcon Modeling’ (2005-NPS-609C-P)

were initiated on March 3, 2008. The following information has been formatted to meet Clark County quarterly report requirements.

QUESTION 1: What did you accomplish during this reporting period? How did these accomplishments help you reach the goal of your project? If relevant, what indicators or benchmarks were used to determine your progress?

This quarterly report describes milestones and deliverables as identified and numbered in the Annual Timeline and Work Plan for this project and covers actions conducted on the associated project, 2005-NPS-609C-P, which covers technical aspects of this project. All deliverables for this quarter were accomplished, as summarized below. There were no milestones this quarter.

Deliverable 6. Quarterly Progress Report

A report for the quarterly period ending on September 31, 2008 was submitted to Clark County.

Other Activities

As part of an extended effort to better document peregrine falcon habitat use during the non-breeding portion of the year, monthly monitoring efforts at several territories (begun in August 2008) have continued through this quarter.

As reported in the previous quarterly report, draft conceptual models for peregrine falcons (Deliverable 3 for project 2005-NPS-609C-P) were submitted to the County (due date of October 1).

QUESTION 2: What, if any, problems were encountered? Briefly describe those problems and how they were dealt with.

No problems were encountered this quarter.

QUESTION 3: What, if any, proposed activities were not completed? Briefly describe those activities, the reasons they were not completed and your plans for carrying them out.

All scheduled activities were completed this quarter.

QUESTION 4: What is the calculated percent of work completed?

There are approximately 9 quarters (some partial) that constitute this project and 4 quarters have been completed; therefore, approximately 45% of the project has been completed.

QUESTION 5: Do you foresee any upcoming problems with future project activities? If so, how do you propose to overcome those problems?

No problems are foreseen.

QUESTION 6: Is there anything else you want to tell the DCP about this project?

No.

QUESTION 7: What was produced during the reporting period?

1. A quarterly report (Deliverable 6)
2. Peregrine falcon observations on non-breeding season use at several territories
3. Draft Conceptual Model (Deliverable 3 for project 2005-NPS-609C-P; delivered early)

Please report on the status of each Milestone and Deliverable, indicate whether they are not started, in progress, or completed and provide comments on the status as necessary:

Project, 2005-NPS-475-P

Milestone 1. Contract Award and Mobilization: completed
Milestone 2. Project Kick-off and Training Meeting: completed
Milestone 3. Begin Peregrine Falcon Monitoring: completed
Milestone 4. Complete Peregrine Falcon Monitoring: completed
Milestones 5-7: Not initiated

Deliverable 1. Quarterly Progress Report: completed
Deliverable 2. Annual Work Plan: completed
Deliverable 3. Detailed Timeline: completed
Deliverable 4. Data Management Plan: completed
Deliverable 5. Quarterly Progress Report: completed
Deliverable 6. Quarterly Progress Report: completed
Deliverable 7. Annual Project Review Presentation: completed
Deliverable 8. Quarterly Progress Report: in progress
Deliverable 9– 21: Not yet initiated

Project, 2005-NPS-609C-P

Milestone 1. Contract Award and Mobilization: completed
Milestone 2: Not initiated

Deliverable 1. Detailed Timeline: completed
Deliverable 2. Data Management Plan: completed
Deliverable 3. Draft Conceptual Model: completed
Deliverable 6. Oral Report: completed
Deliverable 4,5,7–10: Not initiated

Project 4. Assessment of Six Covered and Three Evaluation Bird Species

The following information summarizes efforts under the MSHCP projects titled ‘Historical and Current Assessment of Six Covered and Three Evaluation Bird Species’ (2005-NPS-542-P) and the associated project ‘Conceptual and Habitat Models for Six Covered and Three Evaluation Bird Species’ (2005-NPS-609A-P). The information has been formatted to match the quarterly report requirements of the Clark County MSHCP.

QUESTION 1: What did you accomplish during this reporting period? How did these accomplishments help you reach the goal of your project? If relevant, what indicators or benchmarks were used to determine your progress?

This quarterly report describes milestones and deliverables as identified and numbered in the Annual Timeline and Work Plan submitted for this project. Also reported here are actions conducted on the associated project, 2005-NPS-609A-P that covers technical aspects of the overall project. All milestones and deliverables identified for this quarter have been accomplished, as summarized below.

Milestone 5. Complete Intensive Area Surveys (2008 season)

The intensive bird surveys at four sites were completed at the end of June. Data for these surveys have been entered into databases as defined in the Data Management Plan for this project, and a quality assurance of these data was conducted this quarter. This quarter habitat assessments at the four intensive sites were completed and data was sent to the Great Basin Bird Observatory.

Additional on-going efforts to gain a better understanding of Le Conte's thrasher breeding activity continued this quarter with monthly monitoring at one site. Approximately five pairs of Le Conte's thrashers are using the intensive survey plot at this time.

Milestone 6. Begin Targeted Surveys (2009 season)

Efforts have continued on the compilation of historical location data from published literature, museum records, and data archives (work associated with M3, M6, and M12). The data mining efforts along with results are being recorded in databases established for these purposes. By the end of this quarter, compilation of historical location data will be mostly completed, and assessment of these data will begin. To date, major electronic databases have been searched; these include E-bird, Ornis (Ornithology Information System), Christmas Bird Count Data, The Avian Knowledge Network. Data has also been requested from eight regional agencies (both state and federal) and four museums. In addition, there has been an effort made to gain access to the personal field notes of several well-known regional birders, and 15 articles and books have been reviewed for historical data. This quarter, we initiated planning and organization for the targeted field surveys.

Deliverable 9. Quarterly Progress Report

A quarterly report summarizing efforts for the period ending on September 30, 2008 was submitted to Clark County.

Activities associated with Project 2005-NPS-609A-P

Efforts continue on the habitat-modeling portion of this project. Collaboration continued with a UNLV biostatistician, as well as UNLV professors, on data analysis and habitat modeling. In addition, consolation was acquired on our modeling efforts on thrasher habitat from a modeling specialist within the USGS. This quarter, preliminary habitat suitability maps for the Le Conte's thrasher were created using GIS and the program Maxent, and habitat variables for use in the final assessments were evaluated.

Deliverables: Annual Bird Expert Team Meeting and Annual Report.

The Annual Bird Expert Team Meeting held at MSHCP offices was attended on October 28, 2008 and a verbal and visual annual report was presented. Materials and a written response to the expert's comments on the project is expected to the County by due date of January 1, 2009.

QUESTION 2: What, if any, problems were encountered? Briefly, describe those problems and how they were dealt with?

No problems were encountered.

QUESTION 3: What, if any, proposed activities were not completed? Briefly describe those activities, the reasons they were not completed and your plans for carrying them out.

As defined in the Annual Timeline and Work Plan, all scheduled activities were completed this quarter.

QUESTION 4: What is the calculated percent of work completed?

This project has approximately 13 quarters, 5 quarters have been completed; therefore, by this assessment approximately 38% of the project has been completed.

QUESTION 5: Do you foresee any upcoming problems with future project activities? If so, how do you propose to overcome those problems?

No problems are foreseen at this time.

QUESTION 6: Is there anything else you want to tell the DCP about this project?

No.

QUESTION 7: What was produced during the reporting period?

1. Quarterly Progress Report (Deliverable 9)
2. Data from intensive area monitoring was quality assured (Milestones 5)
3. Habitat assessments of the four intensive area monitoring sites were completed (Milestones 5)
4. Historical location data associated with targeted surveys has been compiled, and planning for targeted surveys has been initiated (work associated with Milestone 3, 6, and 12).
5. Annual report (verbal and visual presentation) to the Bird Expert Team (Deliverables for 2005-NPS-609A-P)

Please report on the status of each Milestone and Deliverable, indicate whether they are not started, in progress, or completed and provide comments on the status as necessary:

Project 2005-NPS-542-P

Milestone 1.	Contract Award and Mobilization: completed
Milestone 2.	Project Kickoff & Training Meeting: completed
Milestone 3.	Begin Review and Compilation of Historical Data: completed
Milestone 4.	Begin Intensive Area Surveys: completed
Milestone 5.	Complete Intensive Area Surveys (2008 season): completed
Milestone 6	Begin Targeted Surveys (2009 season): completed

Milestone 12	Complete Review and Compilation of Historic Data: In progress
Milestone 7-11&13-15:	Not initiated

Deliverable 1.	Annual Work Plan & Detailed Timeline: completed
Deliverable 2.	Data Management Plan: completed
Deliverable 3.	Quarterly Progress Report: completed
Deliverable 4.	Draft Detailed Field Study Design and Protocol: completed
Deliverable 5.	Final Detailed Field Study Design and Protocol: completed
Deliverable 6.	Quarterly Progress Report: completed
Deliverable 7.	Quarterly Progress Report: completed
Deliverable 8.	Annual Project Review and Presentation: completed
Deliverable 9.	Quarterly Progress Report: completed
Deliverable 10	Quarterly Progress Report: in progress
Deliverable 11-30:	Not initiated

Project 2005-NPS-609A-P

Deliverable.	Data Management Plan: completed
Deliverable.	Verbal Report (if requested): completed
Deliverable.	Annual Bird Expert Team Meeting: completed
Deliverable.	Annual Report: in progress

Project 5. Desert Tortoise Monitoring and Management

Deliverables and reporting for compliance monitoring described for Phase I of the task agreement have been completed. No other activity for this project is planned under the task agreement (as modified).

Project 6. Shorebird Monitoring on Lakes Mead and Mohave

The following information summarizes products as described in the task agreement. This is not a MSHCP project, thus the information herein is not presented in the format associated with those reporting requirements.

Monthly Inventory and Monitoring Surveys – Ongoing monthly surveys were conducted on the regular eight intensively monitored sites on Lakes Mead and Mohave throughout the quarter with a total of 24 surveys completed (Table 1). The previous intensively monitored sites now include the addition of the Black Canyon site, which was added to the list of regular sites in January, 2008. All data collected during these surveys were entered into a database.

Data Summary and Presentation – Efforts have also focused on data summary for a presentation at the up-coming Lake Mead Science Symposium.

Water Grab samples – No water samples were requested this quarter.

Table 1. Survey sites and numbers of surveys conducted for aquatic and shorebirds on Lakes Mead and Mohave since March 2004 and during the current quarter.

Lake and Site	Number of Surveys	
	Mar. 04 – Dec. 08	Oct. 08 – Dec. 08
Lake Mead		
Las Vegas Bay	58	3
Muddy River	56	3
Virgin River	56	3
Grand Wash	38	3
Bonelli Bay	12	0
Misc. sites	13	0
Lake Mohave		
Arizona Bay	56	3
Nevada Bay	56	3
Willow Beach	53	3
Black Canyon	9	3
Misc. sites	15	0
Total	422	24

Project 7. Desert Bighorn Sheep Habitat Use Monitoring in Relation to Highway Development

Major elements of this project in the form of data retrieval, data management, and associated field efforts, have been completed. A meeting was conducted on December 4, 2008 by Mr. Haley that included NPS personnel, UNLV/PLI personnel, as well as USGS and NDOW partners in order to discuss potential products and further efforts.

Other Activities Conducted Under or Associated With the Task Agreement

Personnel Development –

Joseph Barnes completed his first semester as a graduate student with the School of Live Science at UNLV.

Dr. Jaeger was an invited manuscript reviewer this quarter for Journal of Herpetology and Molecular Ecology.

Technical Assistance and Regional Coordination –

Dawn Fletcher continued once-a-month assistance with restoration efforts on a LAME project to monitor illegal ground disturbance in response to management actions.

Dr. Jaeger continued volunteer efforts as a session co-chair for the up-coming Lake Mead Science Symposium (meeting scheduled for early January 2009)

Dr. Jaeger continued volunteer efforts as meeting coordinator for the California/Nevada Amphibian Population Task Force (meeting scheduled for mid January 2009).

Publication Efforts, professional outreach –

Dr. Jaeger was credited for providing data on the Relict Leopard Frog in a book titled, Threatened Amphibians of the World, by S. Stuart, M. Hoffmann, J. Chanson et al. (eds) 2008. Lynx Edicions, Barcelona Spain; IUCN, Gland Switzerland; and Conservation International, Arlington Virginia, USA.

Dana Drake submitted for review a natural history note on cannibalistic oophagy in Relict Leopard Frog tadpoles to Herpetological Review in November 2008.

Presentations, professional outreach (individuals under the task agreement identified by underlining) –

Fletcher D.M. Distribution and site selection of the Le Conte's, and Crissal Thrashers across the Eastern Mojave. Verbal presentation at the University of Nevada, Las Vegas, School of Life Sciences, BIOS Symposium, November 22, 2008. Las Vegas, NV.

Submitted by:

Margaret N. Rees, Project Administrator

12/31/2008

Date