

---

**GLENN HEGAR**  
**TEXAS COMPTROLLER OF PUBLIC ACCOUNTS**

---



**Range-wide survey for Louisiana Pigtoe *Pleurobema riddellii* and Texas Heelsplitter  
*Potamilus amphichaenus***

---

<b>Anticipated Schedule of Events</b>	<b>Date</b>
Call for Proposals Issued	August 24, 2020
Proposal Due	October 30, 2020
Contract Execution	December 2020
Commencement of Work	January 2021

**E-mail proposal to [nat.res.research@cpa.texas.gov](mailto:nat.res.research@cpa.texas.gov)  
by 5:00 p.m. on October 30, 2020.**

---

**The selected Respondent will enter into an interagency contract (“Contract”) with the Texas Comptroller of Public Accounts pursuant to Chapters 403 and 771 of the Texas Government Code. The Contract is for services; it is not a grant and should not be processed as such. The Contract between the Comptroller and the selected Respondent will require itemized expenses accompanied by appropriate documentation, which will be reviewed in detail by CPA before payment. Expenses must be justifiable, reasonable and necessary, and directly relate to the research objectives. Potential respondents should consider the reimbursement requirement burden before submitting a proposal.**

## **PART 1 Scope of Work**

### **1.1 Species of Interest:**

- Louisiana Pigtoe *Pleurobema riddellii*
- Texas Heelsplitter *Potamilus amphichaenus*

### **1.2 Geographic Area**

- Entire range of both species in Texas; may include accessing private lands, and/or public lands

### **1.3 Project Timeline:**

- 24 months

### **1.4 Maximum Budget:**

- \$500,000

### **1.5 Research Goals:**

The purpose of this project is to contribute to a better understanding of the viability of these mussels to inform the U.S. Fish and Wildlife Service’s Species Status Assessment (SSA) process and facilitate future monitoring and voluntary conservation actions.

### **1.6 Research Objectives:**

This research will (1) characterize current distribution of *Pleurobema riddellii* and *Potamilus amphichaenus* across entire range for both species focusing in Texas, (2) assess habitat associations and needs of both species, (3) assess genetic structure of both species, and (4) provide information for the start of long-term population monitoring efforts in coordination with stakeholders.

Suggested tasks to meet the objectives include:

- 1) Complete distributional surveys across the entire range of both species focusing in Texas informed by existing data and previous survey efforts and in coordination with Comptroller, U.S. Fish and Wildlife Service, Texas Parks and Wildlife Department, river authorities, and other stakeholders.
  - A. Mussels from select survey sites may be marked to enable research on abundance estimations, test survey efficiency, monitoring for population changes and other future research objectives.
  - B. Make survey results available via ArcGIS online or similar program in coordination with U.S. Fish and Wildlife Service and all other stakeholders.
  - C. Collect standard measurements, genetic material and photo vouchers to verify identification of each *Pleurobema riddellii* and *Potamilus amphichaenus* found.
  - D. Record all other species of mussels found and document as needed to ensure proper identification.

- 2) Assess habitat associations for *Pleurobema riddellii* and *Potamilus amphichaenus*.
  - A. Complete site- and reach-level habitat studies across the range of both species focusing in Texas to identify habitat associations where mussels are and are not found (*e.g.* dams, reservoirs, canals, natural reaches, altered reaches, etc.).
  - B. If appropriate and feasible, develop a map of habitat information using data collected under this study.
- 3) Assess genetics of *Pleurobema riddellii* and *Potamilus amphichaenus*.
  - A. Use genetic material collected from individuals in Task 1 to assess genetic structure of the species across their entire range focusing in Texas. Evaluate whether this structure is influenced spatially, including potential barriers to gene flow and whether it varies between major river drainages. Assess if genetic structure is characterized by recognizable sub-populations.
    1. The samples selected for this study should be gathered in coordination with similar studies to avoid needless replication and maximize the utility of both studies.
    2. Samples may be gathered from outside of Texas if necessary.
    3. Samples from other mussel species may be included in this work to assess current species delineation and range of *Pleurobema riddellii* and *Potamilus amphichaenus*.
    4. Obtain and use existing collections of genetic material to minimize disturbance to wild populations whenever possible.
  - B. Develop a detailed map of genetic structure, if appropriate, using data collected in Task 1.
  - C. Develop a tool or report for resource managers to use as a guide for future conservation work.
- 4) Coordinate with stakeholders.
  - A. Coordinate in advance with stakeholders to identify efficient access for survey locations, ensure communication about survey sites for other ongoing research, and leverage local knowledge to inform the research and improve efficiency of field work.
  - B. Provide opportunities for stakeholders to observe field sampling efforts.
  - C. Attend bi-annual stakeholder meetings to present research updates.
  - D. Frequently communicate with stakeholders in collaboration with Comptroller via email, workgroup meetings, and online presentations.
  - E. Work with stakeholders to provide information for long term-monitoring.

**PART 2**  
**PROPOSAL FORMAT**

**2.1 Respondent Identifying Information**

<b>University Information</b>	
University Name:	
Address:	
Tax ID Number:	

Identify all program and subcontractor personnel in the proposed research project. Subcontractors may include but are not limited to universities, state or federal agencies and private entities.

Provide the following summaries for principal investigators and key personnel, including subcontractors:

1. curriculum vitae;
2. list of accessible publications most closely related to the proposed research project; and
3. description of each person's knowledge of and experience with:
  - A. the ESA, recovery plans, and five-year reviews;
  - B. conducting research on the species of interest; and
  - C. their particular task on the project.

Limit to 5 pages or less per person.

**2.2 Project Description**

Organize proposed project description by section, as shown below. Page limits for each section are maximum numbers, not suggested numbers.

Project Summary: Limit one page. Provide a summary/abstract of the proposed project. Include hypothesis, design, and impact of research.

Background Information: Limit 5 pages. Provide a summary of existing scientific literature and data regarding Louisiana Pigtoe, *Pleurobema riddellii* and Texas Heelsplitter, *Potamilus amphichaenus* throughout the species' entire historic range. Detail how information from this study would fill knowledge gaps for the species.

Questions/Hypotheses: Limit 2 pages. List hypotheses and specific research questions the project would answer.

Research Tasks and Methods: No page limit. Describe how each Research Objective would be addressed, including the following information:

1. Methods to address each objective, including survey methods, locations and format of data sets. Explain deviations from suggested tasks (Section 1.6);
2. Assumptions made in the proposed design;
3. Description of access to or plan to obtain permission to access privately owned property where necessary to perform research, including a contingency plan if the desired access cannot be obtained;
4. Description of expected challenges to the research and appropriate solutions to each challenge (including potential impacts and adaptations to SARS-CoV-2); and

5. Description of plan to disseminate publicly accessible data.

**2.3 Project Management**

The proposed project timeline is 24 months.

Respondent must provide a schedule of work for each of the research tasks and deliverables described in this section using a format similar to the table below.

Task	Year 1 Contract execution – Aug. 31, 2021			Year 2 Sept. 1, 2021 - Aug. 31, 2022				Year 3 Sept. 1, 2022 - Contract expiration
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1

A Year begins Sept 1 and ends the following August 31. Quarters are as follows:

- Q1: Sept 1 – Nov 30
- Q2: Dec 1 – Feb 29
- Q3: Mar 1 – May 31
- Q4: June 1 – Aug 31

The proposed schedule should address the following:

1. submission of detailed Research Plan to Comptroller for review prior to commencement of work;
2. procurement of permissions necessary to access sites, and plan to allow scheduled and coordinated observation by stakeholders;
3. specific milestones for research tasks and project deliverables (e.g., X number of sites sampled for species Y, data submitted to Comptroller);
4. kickoff meeting with Comptroller (in person or via conference call) prior to commencement of work;
5. quarterly status updates with Comptroller and external experts (in person or via conference call);
6. annual public stakeholder meetings or webinars to present/discuss the research;
7. submission of annual and final reports and data sets; and
8. meeting with Comptroller and interested stakeholders following the completion of the Final Report to discuss findings and conclusions.

**2.4 Budget, Justification and Explanation**

Attachment A details the budget section of the proposal. The budget should demonstrate an efficient use of project funds. Costs, including personnel and subcontractors, must be justifiable, reasonable and necessary, and directly relate to the research objectives.

In the event Respondent is funded for other research projects related to the Species of Interest, Respondent must identify the funding source and percentage of salary, time, and other resources that are dedicated to the other project. Respondent must describe plans for leveraging the proposed funding such as collaborating with other researchers, institutions, and agencies to avoid duplication of effort and ensure funds are used efficiently.

## ATTACHMENT A

### Budget

The maximum budget allocated for this project is \$500,000, with the understanding that this amount is contingent upon the availability of legislated funds provided to the Comptroller for endangered species research.

Enter budget costs in the Excel spreadsheet attached to the Call for Proposals email (CPA-NR\_Project-Budget-By-Year). Green cells are fillable. In Attachment A to the proposal, include narratives for each Direct Cost category as noted below.

**Contractual:** Costs for services under contract with third parties. Proposals which subcontract a significant amount of work must include a detailed justification of why the work cannot be done in-house.

1. Excel "Contractual" tab: list each subcontractor name, contact information and cost per contract year.
2. Proposal narrative: Describe subcontractor work and include any clarifying comments.

**Personnel:** All individuals receiving pay for work on project from project budget. Budgeted amounts should be based on and clearly describe the amount of effort each individual contributes to the project.

1. Excel "Personnel" tab: list names (if known), roles, compensation rates (including benefits and tuition), months dedicated to project per year, and cost per contract year.
2. Proposal narrative: include clarifying comments on personnel roles and justify any tuition requested.
  - A. The Comptroller will consider tuition reimbursement if a student's thesis or dissertation research directly addresses project goals and the student works at least 20 hours/week on the project during the semester for which reimbursement is sought.

**Travel:** Lodging, transportation, and meal reimbursement in accordance with State of Texas travel guidelines. Meals are reimbursed on actual expenses. The Comptroller does not pay a per diem amount and will not reimburse for tips or alcohol.

1. Excel "Travel" tab: list trip type and annual cost per trip type.
2. Proposal narrative: justification for any conferences and other clarifying comments.

**Supplies:** Routine costs for items needing replenishment throughout project.

1. Excel "Supplies" tab: list supply type and cost per contract year.
2. Proposal narrative: include any clarifying comments.

**Equipment:** Capital expenses for equipment costing over \$1,000 per item.

1. Excel "Equipment" tab: include name of item, make and model, and cost per contract year.
2. Proposal narrative: include item purpose, direct benefit to the project and other clarifying comments.

**Indirect Costs:** Indirect costs must be capped at ten percent (10%) of Direct Costs. A proposal will be disqualified if indirect costs are not capped at ten percent (10%). The Comptroller does not reimburse for indirect costs calculated on subcontractor-billed indirect costs.

**Note:** Expenses generally not eligible for reimbursement by the Comptroller are computers, software, vehicles, vehicle maintenance or repairs, journal publications, laundry services, registration or cancellation fees, out-of-state conferences or in-state conferences unless personnel are presenters. If requesting any of these items, include a detailed explanation of the item's value to the project.