

# WILDLIFE CONSERVATION GRANTS

## PRIORITIES

Projects will be evaluated more favorably if they address these priorities:

- Emphasize survey, monitoring, and habitat restoration (data collection must be a part);
- Provide specific conservation and/or management application;
- Engage conservation partners and private landowners in significant habitats and systems;
- Identify or address threats, with recommendations for ameliorating;
- Include applied monitoring to demonstrate effectiveness of the project;
- Provide non-federal match\*; and,
- Clearly benefit *specific* Species of Greatest Conservation Need (SGCN) (*or assemblage of SGCN*), their habitats and/or ecological processes on which they depend – highest priorities listed below.

\*The mix of grant money available is federal and state, not all of which requires match; however, proposal which provide match enable us to distribute more conservation money outside of Texas Parks and Wildlife Department to our conservation partners.

### **Priority Species of Greatest Conservation Need (SGCN), Rare Communities, Habitats and Ecological Processes**

Proposals that significantly address the needs of TCAP Species of Greatest Need and Rare Plant Communities, other than those detailed below, will also be considered.

#### **Amphibians and Reptiles**

##### **Field Surveys and Habitat Assessments for Reptile and Amphibian Species of Grasslands and Prairies**

Several reptile and amphibian species associated with grasslands and prairies are of particular concern due to habitat loss and alteration. These species include the spot-tailed earless lizard (*Holbrookia lacerata*), reticulate collared lizard (*Crotaphytus reticulatus*), Texas and roundtail horned lizards (*Phrynosoma cornutum* and *Phrynosoma modestum* respectively), desert massasauga (*Sistrurus catenatus edwardsi*), Texas garter snake (*Thamnophis sirtalis annectens*), crawfish frog (*Lithobates areolatus*), prairie skink (*Plestiodon septentrionalis*), and Strecker's chorus frog (*Psuedacris streckeri*) in the eastern portion of that species range. Field surveys and assessments of current threats are currently needed to determine the conservation status of these species in Texas.

- Characterize, identify, and survey potential habitat as well as previously known sites.
- Collect site and population information using TXNDD forms.
- Submit report on status and threat updates, TXNDD forms, and GIS data/shapefiles.

#### **Birds**

##### **Mountain Plover**

Survey of wintering grounds for population status and habitat selection. Large agricultural producing areas in San Patricio, Nueces, Willacy, Cameron, and Hidalgo counties need to be surveyed in a sample design in order to extrapolate total population wintering in area.

- Findings will report areas sampled, habitat selected, total birds found, and estimated population.
- Collect site and population information using TXNDD forms.
- Submit report on status and threat updates, TXNDD forms, and GIS data/shapefiles.
- Provide conservation recommendations and a proposal for monitoring to assess trend in the future, if warranted by findings.

##### **Southwestern Willow Flycatcher and Western Yellow-billed Cuckoo**

Survey for Southwestern Willow Flycatcher (SWWF) and Western Yellow-billed Cuckoo (YBCU), in suitable breeding habitat and confirm nesting in the Chihuahuan Desert ecoregion, to provide baseline information to TXNDD.

- Provide assessment and description of habitat and community type (working with TPWD Communities Ecologist for appropriate system nomenclature) suitable for YBCU and/or SWWF for areas not surveyed.
- Collect site and population information using TXNDD forms.
- Submit report on status and threat updates, TXNDD forms, and GIS data/shapefiles.
- Provide conservation recommendations and a proposal for monitoring to assess trend in the future, if warranted by findings.

### **Sprague's Pipit**

Survey winter habitats for Sprague's Pipit (SPPI) in Texas south of IH-20.

- With findings, provide assessment and description of habitat and community type (working with TPWD Communities Ecologist for appropriate system nomenclature) suitable for SPPI for areas not surveyed.
- Collect site and population information using TXNDD forms.
- Submit report on status and threat updates, TXNDD forms, and GIS data/shapefiles.
- Provide conservation recommendations and a proposal for monitoring to assess trend in the future, if warranted by findings.

### **Invertebrates**

#### **Field Surveys and Habitat Assessments for Invertebrates Petitioned for Federal Listing**

The Kistachie painted crayfish (*Orconectes maletae*), Louisiana eyed silkmoth (*Automeris louisiana*), and Texas emerald dragonfly (*Somatochlora margarita*) have all been petitioned for listing under the Endangered Species Act. These species are all marked by significant data gaps regarding distribution and/or habitat use. Field surveys and assessments of current threats are currently needed to determine these species conservation status in Texas.

- Characterize, identify, and survey potential habitat as well as previously known sites.
- Collect site and population information using TXNDD forms.
- Submit report on status and threat updates, TXNDD forms, and GIS data/shapefiles.

#### **Field Surveys and Habitat Assessments for Endemic Insects of the Monahans Dune System**

Several insect species have been recorded as endemic to the Monahans Dune System of west Texas. These species (*Anomala suavis*, *Epitragosoma arenari*, *Nicagus occultus*, *Polyphylla monahansensis*, *Polyphylla pottsorum*, *Prionus arenarius*, *Prionus spinnipenis*, *Stenopelmatus monahansensis*, and *Trigonoscutoides texanus*) current distributions are not well-defined and little, to any, up-to-date information is available regarding habitat use. Given lack of current data, all of the aforementioned species are considered extremely rare and appear to be highly localized within this dune system. Field surveys and assessments of current threats are currently needed to determine these species conservation status in Texas.

- Collect site and population information using TXNDD forms.
- Submit report on status and threat updates, TXNDD forms, and GIS data/shapefiles.

### **Mammals**

#### **Bats and White Nose Syndrome**

For all native bat species, with emphasis on those potentially affected by White Nose Syndrome (little brown bat *Myotis lucifugus*, tri-colored bat *Perimyotis subflavus*, big brown bat *Eptesicus fuscus*, Indiana bat *Myotis sodalis*, cave bat *Myotis velifer*, southeastern bat *Myotis austroriparius*, and potentially other cave-hibernating colony bats like *Tadarida brasiliensis*) and employing the state-of-the-practice USFWS decontamination protocols for cave surveys of any kind:

- Update or conduct new surveys/monitoring in key portions of the state in natural habitats (e.g. observations in roosts, colonies; not bridges or mist-netting over roadside bar ditches), coordinating with Bat Conservation International to target appropriate areas.
- Collate and/or collect bat-occupied cave/karst hibernacula environmental (temperature, humidity, other microclimate) baseline and trend data related to where bats roost in the site.
- Sample known occupied hibernacula caves to test for *Geomyces destructans* working with a certified laboratory for that analysis.

#### **Kit/Swift Fox**

This species was once reported to be common in the Trans-Pecos, however sightings are increasingly rare. Field surveys and assessments of current threats are currently needed to determine this species conservation status in Texas.

- With findings, provide an assessment and description of the distribution and population status.
- Collect site and population information using TXNDD forms.
- Submit report on status and threat updates, TXNDD forms, and GIS data/shapefiles.
- Provide conservation recommendations and a proposal for monitoring to assess trend in the future, if warranted by findings.

### **Texas Kangaroo Rat**

The Texas kangaroo rat is a state-threatened species that is geographically limited to a few counties in North Texas and only occurs in specific habitats (heavily grazed, short grass habitats with clay soils and scattered mesquite). Field surveys and assessments of current threats are currently needed to determine this species conservation status in Texas.

- Develop population modeling proposal to identify potential occupied habitat.
- Study effects of habitat modification (CRP, Agriculture conversion, etc) on local populations
- Study effects of small scale habitat alterations (heavy spot grazing, brush control) to determine if population increases and/or range expansion can be made.
- Research minimum viable population size and minimum areas (acreage) for viable populations.
- Continue previous mark/recapture research to develop trend data on known populations.
- Collect site and population information using TXNDD forms.
- Submit report on status and threat updates, TXNDD forms, and GIS data/shapefiles.

### **Plants**

#### **Permanent Landscape Protection for Rare Plants**

Several rare and endangered species have either no sites with permanent long-term protection or are protected voluntarily by the current landowner. In order to achieve recovery of a listed species or avoid listing of a rare species, conservation easements provide assurance of protection in perpetuity.

- Obtain conservation easements for one or more sites for one or more of the following plants: Texas poppy-mallow (*Callirhoe scabriuscula*), black lace cactus (*Echinocereus reichenbachii* var. *albertii*), Texas golden gladeless (*Leavenworthia aurea*), white bladderpod (*Physaria pallida*), and Navasota false foxglove (*Agalinis navasotensis*).
- Provide legal documentation, property boundaries (including a shapefile), easement holder, completed TXNDD file and shapefile for each rare plant population.

#### **G3 Plant Species Review**

Approximately 50% of the Species of Greatest Conservation Need (Texas Conservation Action Plan) are ranked G3 (T3) or G3G4 (T3T4). Many of these plants may actually be ranked G4, and thus not meet the criteria for rare plant SGCN status. Removing such apparently secure species from the SGCN list would allow limited resources to be used more effectively.

- Compile species data from TXNDD, relevant herbaria, and field work.
- Provide data (including GPS files, TXNDD forms, and landowner permission forms where required) to the TXNDD.
- Use assembled data to rank species using the rank calculator and provide rank and documentation to TXNDD.

#### **Field Surveys and Threat Assessments for Potential USFWS Plant Candidate Species**

Several lawsuits have identified almost 20 rare plants for which USFWS needs to review the status to determine if the plants meet the criteria for candidate status. Many of these species have not been thoroughly or recently surveyed nor have a current threat assessment. These species include Tharp's bluestar (*Amsonia tharpii*), prostrate milkweed (*Asclepias prostrata*), Don Richard's spring moss (*Donrichardsia macroneuron*), small-headed pipewort (*Eriocaulon koernickianum*), brush pea (*Genistidium dumosum*), big red sage (*Salvia pentstemonoides*), and Texas trillium (*Trillium texanum*). Additionally, two non-lawsuit, but rare and potentially highly threatened, plants (dune umbrella sedge – *Cyperus onerosus*, Tharp's rhododon – *Rhododon tharpii*) also need up-to-date surveys and recent threat assessments.

- Characterize, identify, and survey potential habitat as well as previously known sites.
- Collect site and population information using TXNDD forms.
- Submit report on status and threat updates, TXNDD forms, and GIS data/shapefiles.

### **Web Page Development for Rare Plants**

Web pages for rare species provide quick access for identification, habitat, and range information for biologists, environmental review, consultants, students, and the general public. Recently, TPWD completed web pages for all listed rare plants as well as two plants proposed for listing. Much of this information is available in *Rare Plants of Texas* (2007, Texas A&M University Press) but needs to be updated with recent information, additional photographs (including similar appearing species), survey season, and links to relevant sites. Species that need web pages are prioritized: 1) plants currently under review for USFWS candidacy, 2) SGCN plants ranked as G1 (T1), and 3) SGCN plants ranked as G2 (T2).

- Review current web page format and assemble species information, photographs, references, and links similar to that on the current pages.
- Submit to Wildlife Diversity botanists for review.

### **Effective Pollinators of Endangered, Threatened, and Rare Plants**

The effective pollinators of only a few rare plants are known. In order to recover listed plants and to help keep non-listed species from becoming listed, it is very important to know what species are effective pollinators so that the pollinator species are conserved as well.

- Using knowledge of floral morphology and effective pollinators of similar species, compile a review of potential effective pollinators of all SGCN plants.
- Through field studies, confirm effective pollinators of listed species, candidate species, MDL species, G1 (T1), and/or G2 plants.
- Submit report to Wildlife Diversity Program.