

Studies of the Springs of the Trans-Pecos Region of Texas

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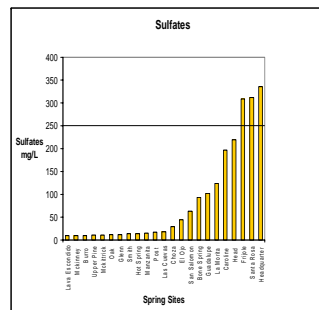


April 11-14, 2005

Goals

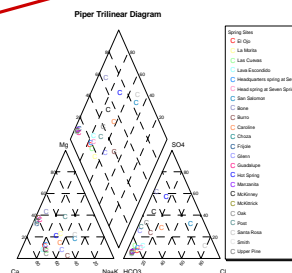
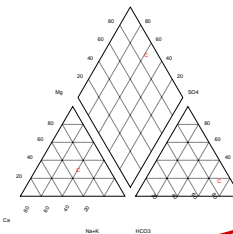
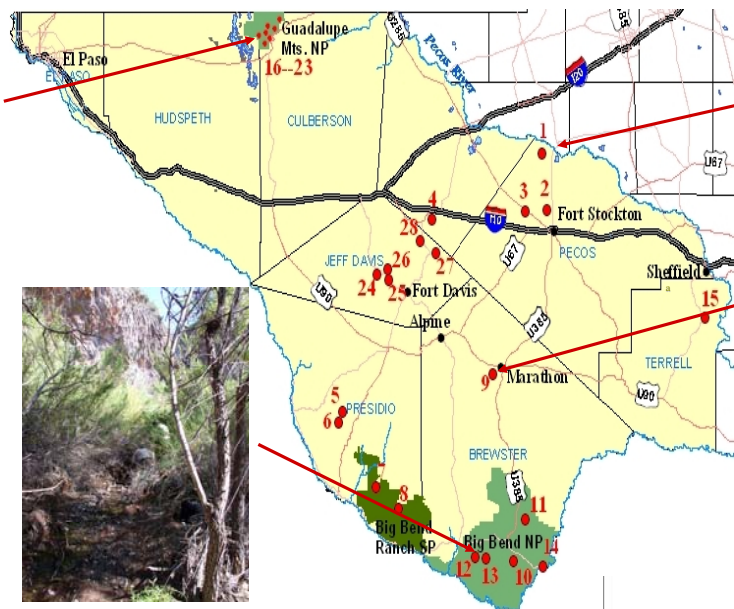
This Study focuses on collecting current water quality data for West Texas springs. Historic and current data on ground water systems in the Trans-Pecos region is being compared and analyzed for trends in water quality and flow. It provides a broader baseline of water quality data for this region of Texas. Biota of the springs are being studied by use of Rapid Bioassessment Protocols.

SAN MARCOS, TX



Dates Project began 7/1/2004 and is continuing. Funding to 6/30/2006

All Springs



Metric	Value	Score
Taxa Richness	17	3
EPT Taxa Abundance	1	1
Biotic Index (BI)	8.31	1
% Chironomidae	30.68	1
% Dominant Taxon	30.68	3
% Dominant FFG	21.59	4
% Predators	55.68	1
Ratio of Intolerant Tolerant Taxa	0.12	1
% of total Trichoptera as Hydropsychidae	0	1
# of non-insect taxa	3	2
% Collector gathers	19.32	3
% of total number as Trichidae	0	1

Post Spring

Aquatic Life Use Scores
 Exceptional: >6
 High: 29-36
 Intermediate: 22-28
 Limited: < 22

Total Score: 22 Aquatic Life Use Score: Intermediate

Field Measures

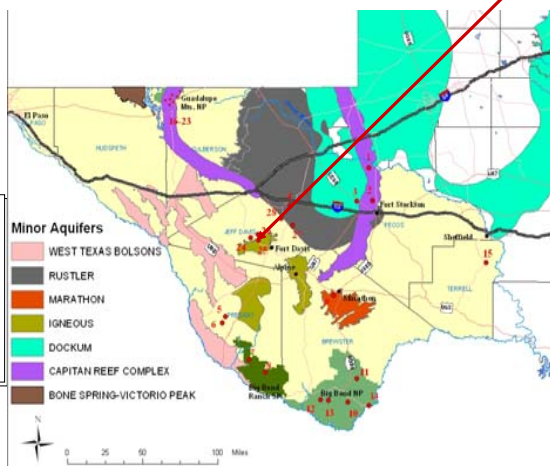
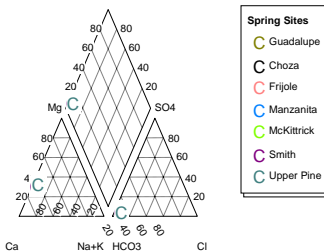
- Air Temperature
- Latitude/Longitude
- Water Temperature
- Conductivity
- pH
- Dissolved Oxygen
- Flow

Methods

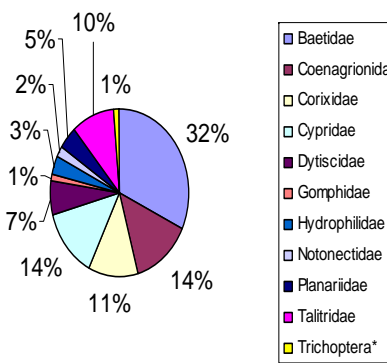
Collecting Water Samples
 All water samples collected utilizing EPA and TCEQ guidelines for sampling and holding times.

- Each site:
 Nutrients
 Metals; Se, Hg, As, Ag, Mn, Cr, Fe, Ca, Na, Mg, K, Si, P, B, Al, Sr & Ti
 Aquatic invertebrates & vertebrates – Provide species list

Piper Trilinear Diagram



Families Found at H.Q. Spring



Fluoride

