

## Sybil M. Glenos

Scientist II, Environmental Sciences & Planning

Sybil Glenos serves as an ecologist for Atkins' environmental services program. Ms. Glenos has over 6 years of experience in freshwater, estuarine, and marine ecological research involving water quality, long-term ecological monitoring, conservation management, estuarine ecology, herpetology, population genetics, and population and community ecology of threatened and endangered species. Prior to joining Atkins, Ms. Glenos performed research spanning a 4-year period on the Texas diamondback terrapin, the Alabama diamondback terrapin, and the gopher tortoise at multiple locations along the upper Gulf Coast. Her experience in herpetological studies includes developing survey methodology and conducting surveys to determine baseline populations, study population dynamics, nesting behavior, temperature-dependent sex, and critical life history parameters. She has published articles and/or presented several papers on the results of these various studies. Ms. Glenos also has experience in water quality monitoring, wetland delineations, vegetation surveys, threatened and endangered (T&E) species surveys, global positioning system (GPS) tracking, geographic information system (GIS) mapping and spatial analysis, project management and team leadership, data management, analyses of habitat assemblages, statistical analysis, methodological design, population genetics analysis, biological tissue sampling, scientific and technical report writing, project budget management, and population modeling. Since joining Atkins, Ms. Glenos has performed various environmental tasks, including field surveys for coastal and marine environments and preparation of environmental assessment reports and supporting documents for regulatory permitting applications.

Ms. Glenos' project experience with Atkins includes:

**Houston Ship Channel (HSC) Project – Exxon to Carpenter Bayou, U.S. Army Corps of Engineers (USACE) – Galveston District, Harris County, Texas.** Field lead for project that involves the sample collection, testing, and chemical analyses of sediment and water within a segment of the upper HSC prior to performing routine maintenance dredging. Responsible for field data collection, water quality monitoring, sampling of sediment, water and elutriate for chemical analyses, providing supporting documentation, laboratory results analyses of contaminants of concern (COC), and reporting. **Duration:** 07/2015–Present

**Proposed Ship Dock 6 South Berth Project, Targa Downstream LLC, Galena Park, Harris County, Texas.** Team member responsible for analyses of sediment, water, and elutriate, laboratory chemistry results for COC, supporting documentation, aiding in the development of a dredged material management plan (DMMP) for new work material, and provide reporting assistance in the application for a Rivers and Harbors Act (RHA) Section 10 permit for the dredging and alternative placement of new work material in support of the proposed construction of a ship dock terminal. **Duration:** 06/2015–Present

**Gulf Intracoastal Waterway (GIWW) Project – Galveston Causeway to Bastrop Bayou, USACE – Galveston District, Galveston County, Texas.** Field lead for project involving the sample collection, testing, and chemical analyses of sediment and water within a segment of the GIWW prior to performing routine maintenance dredging. Responsible for field data collection, water quality monitoring, sampling of sediment, water, and elutriate for chemical analyses, providing supporting documentation, laboratory results analyses of COC, and reporting. **Duration:** 06/2015–Present

**Sabine-Neches Waterway (SNWW) Channel Improvement Project, U.S. Army Corps of Engineers (USACE)- Galveston District, Sabine Pass Ship Channel, Jefferson County, Texas and Cameron Parish, Louisiana.** Team leader for project involving the sample collection, testing, and chemical, physical, and biological analyses of sediment and water within the Sabine Pass Ship Channel, four offshore ocean dredged material disposal sites (ODMDS), and two reference stations. Responsible for overseeing field data collection aboard offshore sampling vessel, water quality monitoring, sampling of sediment, water, and elutriate for chemical analyses, providing supporting documentation, and assisting with analyses and reporting. **Duration:** 05/2015–Present

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### Education

M.S., Environmental Science-Biology, University of Houston – Clear Lake, 2013

B.S., Marine Biology, Auburn University, 2008

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### Registrations/Licenses

Transportation Worker Identification Credential (TWIC), U.S. Dept. of Homeland Security  
11/2014–11/2019

Boater Education, Texas, License #1207397  
12/2012–Present

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### Scientific Collection Permits

Scientific Collection Permit, Louisiana Dept. of Wildlife and Fisheries, Permittee #SCP 115  
02/2015–12/2015

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### Certifications/Trainings

GIS: The Very Basics, RedVector® Online Course  
08/2015 - Present

TCEQ OPP 8.12 GPS Training Certificate, Western Data Systems (WDS)  
01/2015–01/2017

Basic Plus Safety Training, Industrial Safety Training Council (ISTC), 09SSV 09/2014–09/2015

Enterprise Site-Specific Safety Training, ISTC, 09SSV 09/2014–09/2015

Driving Safety Course, Texas State Office of Risk Management (SORM)  
08/2012–Present

SCUBA, SCUBA Schools International (SSI)  
08/1997–Present

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**Venture Global LNG Calcasieu Pass Project, Venture Global LNG, Calcasieu Pass, Cameron Parish, Louisiana.** Team leader responsible for overseeing field data collection and geotechnical boring of sediment samples, collection of water samples and water quality measurements, performing chemical analyses of sediment, water, and elutriate, laboratory results for COC, characterization of material based on sediment grain size, supporting documentation, and preparation of dredged material characterization and evaluation report, in support of the proposed construction of a liquefied natural gas (LNG) facility in Calcasieu Pass, LA. **Duration:** 04/2015–Present

**Freeport Harbor Entrance and Jetty Channel Widening Project, Port of Freeport, Brazoria County, Texas.** Team leader and member responsible for field data collection, water quality monitoring, sediment sampling, supporting documentation, and reporting for the proposed widening of the entrance to the Freeport Harbor Ship Channel and providing the client with contaminant testing, biological assessments, and environmental monitoring services in order to establish an ecological baseline for determining the suitability of the dredge material from the channel for placement into a private offshore ODMS. Following the placement of the dredged material at the ODMS, the area was sampled within 1 month post-placement, and will be monitored for ecological impacts at 6 months and at 1 year following placement of the dredged material. **Duration:** 10/2014–Present

**Confined Upland DMPA Material Characterization, Texas International Terminals (TIT), Galveston Ship Channel, Galveston County, Texas.** Team leader responsible for conducting field sampling in accordance with regulatory protocol for sediment, water, and elutriate collection, testing, and analyses of dredged material, conducting physical and chemical evaluation of material, and reporting results. The project involved evaluating the material in the TIT confined upland dredged material placement area (DMPA) facilities for chemical constraints on alternative placement and its potential for beneficial use applications. **Duration:** 02/2015–04/2015

**Morgan's Point Wharf 8 Rehabilitation Project, Enterprise Products Operating LLC, Barbours Cut, Morgan's Point, Harris County, Texas.** Team leader and member responsible for field data collection, water quality monitoring, supporting documentation, and reporting to support submission of an Individual Permit (IP) application to the U.S. Army Corps of Engineers (USACE). Prepared Contaminant Assessment Report, Oyster Mitigation Plan (OMP), and DMMP. Previously collected data will be used to compile a technical report for waters of the U.S., including wetlands and special aquatic natural resources sites. **Duration:** 10/2014–01/2015

**Endeavour Marina Survey Services, Endeavour Marine, Seabrook, Harris County, Texas.** Team member responsible for wetland delineation and documentation for proposed 10-acre project involving a waters of the U.S. delineation and special aquatic natural resources survey. **Duration:** 10/2014–present

**Ethane Export 24-inch Pipeline Project, Enterprise Products Operating LLC, Harris and Chambers Counties, Texas.** Team member responsible for reporting and supporting documentation of ecological investigations to support permitting for a proposed 15-mile-long, 24-inch-diameter pipeline. Services included ecological and archeological investigations, environmental investigations, and environmental permitting. **Duration:** 10/2014–12/2014

**Freeport LNG Dock 2 Dredging, Freeport LNG, Quintana Island, Freeport, Brazoria County, Texas.** Team member responsible for field data collection, documentation, and reporting. Work included sediment sampling, toxicity testing, analysis, and assisting with permit applications for the proposed dredging for a new import/export terminal for LNG carrier ships. Pre-dredge samples were collected from the proposed dredge footprint via land-based drill rig, as well as from an offshore reference area via drill rig mounted aboard offshore vessel. **Duration:** 09/2014–08/2015

**Memorial Park Demonstration Project, Harris County Flood Control District (HCFCD), Buffalo Bayou, Houston, Harris County, Texas.** Team member responsible for field

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## Professional Affiliations

Diamondback Terrapin Working Group (DTWG)

Gopher Tortoise Council (GTC)

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## Software

### Processing Software:

Microsoft® Office Suite (Access, Excel, Lync/Skype for Business, Outlook, PowerPoint, Word)

Adobe Acrobat 7.0 Professional

### Spatial Analysis Software:

Esri® ArcGIS versions 9.1, 9.3, 9.6, 10.0, 10.2, and 10.3

GPS Pathfinder® Office

Distance®

Google Earth Pro®

### Statistical Analyses Software:

Minitab®

MS Excel®

### Genetic Analyses Software:

GeneMapper® version 4.1

GenAIEx®: Genetic Analysis in Excel version 6.5

Arlequin® version 3.1

GenPop®

STRUCTURE®

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## Equipment

YSI Multiparameter Datasondes for Water Quality Monitoring

Trimble GeoXT® and GeoXH® GPS

Garmin® GPS

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benthic macroinvertebrates data collection and post-field processing for preconstruction benthic macroinvertebrates and fish monitoring services. The project involves use of recommended transects established by HCFCD representatives to assess in-stream macroinvertebrates and fish populations to evaluate preproject biological integrity of the stream. **Duration:** 10/2014–11/2014

Prior to joining Atkins, Ms. Glenos' experience included:

**Graduate Teaching Assistant, University of Houston – Clear Lake, Houston, Harris County, Texas.** Responsible for instructing students in genetics lab techniques in performing basic and multiplex polymerase chain reactions (PCR) for plant genomics course. **Duration:** 08/2013–12/2013

**Graduate Research Assistant, Environmental Institute of Houston (EIH), University of Houston – Clear Lake, Houston, Harris County, Texas.** Responsible for long-term monitoring mark-recapture field study of Texas diamondback terrapin populations primarily in Galveston Bay, TX, as well as reconnaissance of populations in all major estuaries along the Texas coast. Served as project team leader for study estimating Texas blue crab fishery by-catch mortality and critical life history parameters of the Texas diamondback terrapin. Also, assisted as team member on other various contracts and grants involving water quality, wetland habitat assessments, wetland delineations, long-term ecological monitoring, biological surveys, migratory shorebird research, and blue crab growth model study. General duties included field work, data collection, project management, methodological design, statistical data analyses, reports, data entry/quality control and database management, collaboration with locals, agencies, and academia, maneuvering/trailing and maintaining marine vessels and vehicles, calibration and maintenance of scientific research equipment and YSI sondes, project proposals, literature review, and scientific articles. **Duration:** 2011–2013

**Project Leader/Research Associate, Auburn University, Auburn, Lee County, Alabama.** Responsible for survey of gopher tortoise populations on key state and federal lands in Alabama. Duties and responsibilities included completing contract objectives in set time on fixed budget, managing project budget, supervision of personnel, collaboration with principal investigator (PI), database management, methodological design, geographic information system (GIS) mapping using U.S. Geological Survey (USGS) data, operation of Trimble GeoXT® GPS unit, statistical data analyses, leading field crews in weekly surveys of turtle burrows, working in remote, rural locations for extended periods, drafting state reports using scientific information to offer management recommendations, project liaising for state and federal land managers and private land owners, presenting data at conferences and meetings, and public outreach by educating private landowners on conservation land management. **Duration:** 2010–2011

**Assistant Wildlife Biologist, University of Arizona, Grand Bay, MS and Weeks Bay, AL National Estuarine Research Reserves (NERR), Grand Bay, Jackson County, Mississippi; Fairhope, Baldwin County, Alabama.** Contracted by the University of Arizona to perform auditory point-count surveys of secretive marsh birds in Mississippi and Alabama utilizing national standardized protocol. Responsibilities included operation of marine vessels, data collection, daily data entry/quality control of data entered into national database using Microsoft Access, auditory and visual identification of species of interest, and photo documentation. **Duration:** 03/2009–08/2009

**Field Technician, University of Alabama – Birmingham (UAB), Dauphin Island Sea Lab (DISL), Dauphin Island, Mobile County, Alabama.** Investigated nesting behavior and temperature-sex dependency (TSD) as part Alabama diamondback terrapin monitoring program by the University of Alabama – Birmingham (UAB) in collaboration with the Gulf Coast Diamondback Terrapin Working Group (DTWG) Responsibilities included daily monitoring of pitfall traps and surveys of nesting beach and habitat. **Duration:** 05/2008–08/2008

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**Marine Ecosystems Lab Intern, Dauphin Island Sea Lab (DISL), Dauphin Island, Mobile County, Alabama.** Responsible for assisting with projects involving long-term ecological monitoring of submerged aquatic vegetation and seagrass communities in Mobile Bay, Alabama estuary and surrounding areas (Weeks Bay, AL NERR, Grand Bay, MS NERR, Alabama eastern shore, and the Florida panhandle). **Duration:** 05/2008–08/2008

### Publications

Farina, Simone, Rohan Arthur, Patricia Prado, Javier Romero, Adriana Vergés, Glenn Hyndes, Ken L. Heck, Sybil M. Glenos, and Teresa Alcoverro. "Differences in predator composition alter the direction of structure-mediated predation risk in macrophyte communities." *Oikos*, 2014.

Glenos, Sybil M., "A comparative assessment of genetic variation of diamondback terrapin (*Malaclemys terrapin*) in Galveston bay, Texas in relation to other northern Gulf Coast populations," Master's Thesis, University of Houston – Clear Lake, Houston, Texas, 2013.

Guyer, Craig, Sybil M. Glenos, Sharon M. Hermann, and Jonathan Stober. "The status of gopher tortoises (*Gopherus polyphemus*) in Alabama, with special reference to three important public properties." *Unpublished report by the Alabama Division of Wildlife and Freshwater Fisheries*, 2011.

Guyer, Craig, Sybil M. Glenos, and Brian J. Lowe. "A survey of gopher tortoise (*Gopherus polyphemus*) burrows on key properties in Alabama." *Unpublished report by the Alabama Division of Wildlife and Freshwater Fisheries*, 2010.

### Presentations

Guillen, George J., Jenny Oakley, Sybil M. Glenos, and Emma Clarkson. "Potential impact of the blue crab fishery on Texas diamondback terrapin (*Malaclemys terrapin littoralis*)," in Proceedings of the 6<sup>th</sup> Symposium on the Status, Ecology, & Conservation of the Diamondback Terrapin, St. Christopher's Camp Conference Center, Seabrook Island, South Carolina, September 14, 2013.

Glenos, Sybil M. "A comparative assessment of genetic variation of diamondback terrapin (*Malaclemys terrapin*) in Galveston Bay, Texas in relation to other northern Gulf Coast populations," Presented to the faculty of the University of Houston – Clear Lake in partial fulfillment of the requirements for the degree Master of Science, Houston, Texas, December 2, 2013.

Glenos, Sybil M. "A survey of gopher tortoise (*Gopherus polyphemus*) burrows on key properties in Alabama," Presented at Annual Southeastern Evolution and Ecology Conference (SEEC), Auburn University, Auburn, Alabama, March 26, 2011.

Glenos, Sybil M. "Influence of forest management and soil class on the densities of *Gopherus polyphemus* in south Alabama forests." Presented at Annual Gopher Tortoise Council Meeting (GTCM), Alabama 4-H Club, Columbia, Alabama, October 9, 2010.

Glenos, Sybil M. "Developing optimal survey techniques for monitoring population status of rails, snipes, coots, and gallinules," Presented at Weeks Bay National Estuarine Research Reserve (NERR) Advisory Committee Meeting, Weeks Bay NERR, Fairhope, Alabama, December 9, 2009.