Michael Orion Alexander Gough

Conservation Biology Institute
136 SW Washington Ave., Suite 202
Corvallis, OR 97333
Ph. 541-757-0687
mike.gough@consbio.org

Mike Gough is a GIS analyst with 12+ years professional experience in the geospatial sciences. Prior to joining CBI in 2012, Mike served as a GIS lecturer in the Environmental Science & Management Department at Humboldt State University in Arcata, CA. During his tenure with HSU's Institute for Spatial Analysis, he served as the lead GIS Analyst and Systems Administrator on several multidisciplinary projects spanning oceanographic research and education, water quality monitoring, infrastructure development, natural hazards, renewable energy, and land use planning. Between 2004 and 2012, he made significant contributions to the Central and Northern California Ocean Observing System (HSU CeNCOOS). Among these, was the development of several automated real-time data acquisition & monitoring systems.

Mike draws upon his background in the geospatial sciences, natural resource planning, and computer information systems to guide the development of tools which help promote healthy and sustainable interactions among human and natural systems. His direct research interests comprise dynamic spatiotemporal modeling, web-mapping and database application development, scripting & automation, 3D geographic visualization, and the development of decision-support tools.

Mike earned his B.S. in Natural Resources Planning & Interpretation with an option in Geographic Information Systems & Remote Sensing and a minor in Computer Information Systems from Humboldt State University in 2005. He lives with his wife Rebecca and their entourage of furry companions.

EDUCATION

B.S. Natural Resources Planning and Interpretation, GIS & Remote Sensing Option. Humboldt State University; Arcata, CA (2005). GPA: 3.97

A.S. Computer Software Applications. Monterey Peninsula College; Monterey, CA

(2002). GPA: 4.0

A.A. University Studies. Monterey Peninsula College; Monterey, CA (2001). GPA: 4.0

EMPLOYMENT HISTORY

2012 – Present. **GIS Analyst/Web Developer,** Conservation Biology Institute; Corvallis, OR.

2004 – Present. **GIS Analyst/Database Manager/Systems Administrator/Web Developer,** CeNCOOS (Central and Northern California Ocean Observing System); Arcata, CA.

2004 – 2012. Lecturer, Humboldt State University; Arcata, CA.
Courses Taught:

- EMP 377 – Introduction to GIS Concepts
- EMP 470 – Intermediate Geographic Information Systems
- EMP270–GPS Techniques

2004 – 2012. **GIS Analyst/Database Manager/Systems Administrator/Web Developer**, HSU Institute for Spatial Analysis; Arcata, CA.

2006 – 2010. **Database Manager/Systems Administrator/Web Developer**, Klamath Watershed Institute; Arcata, CA.

SELECT PROJECT EXPERIENCE

Desert Renewable Energy Conservation Plan – CEC, BLM, CDFW, USFWS
Project Summary: A multi-agency collaboration designed to help ensure the protection and conservation of California's desert ecosystems while guiding and mitigating the impacts of renewable energy development projects. The DRECP study area comprises approximately 22.5 million acres of federal and non-federal land in the California desert. Duties and Responsibilities: GIS analysis, ecological modeling, web and database application development.

BLM Utah DWR - Intactness Stepdown & Climate Change Assessment -- BLM
Project Summary: Update and downscale the Colorado Plateau terrestrial landscape intactness model and aquatic model. Updates and enhancements to climate change models. Duties and Responsibilities: GIS analysis, FRAGSTATS modeling, ecological

modeling, web and database application development.

BLM Rapid Ecoregional Assessment (REA), Sonoran Desert Ecoregion & Colorado Plateau – BLM
Project Summary: Rapid Ecoregional Assessments conducted for two ecoregions in the western United States. The purpose of these studies was to provide regional-scale information and assessments on the current and future condition of each ecoregion to the BLM and its partners to assist with land use planning, developing best-management practices, authorizing uses, and establishing conservation and restoration priorities. Duties and Responsibilities: GIS analysis, ecological modeling, data management.

IDB-CIAT Carbon/Biodiversity Analysis – Inter-American Development Bank
Project Summary: Quantifying the confluence of carbon and natural values/biodiversity in Latin America, infrastructure assessment, and the identification of areas of significant ecological impacts. Duties and Responsibilities: GIS analysis, modeling, cartographic design.

North Coast Tsunami Currents Pilot Project — Earthquake Center Trust
Project Summary: Testing the feasibility of using acoustic doppler current profilers (ADCP) to measure tsunami currents. Duties and Responsibilities: Develop, code, and maintain an automated real-time data acquisition system for the ADCP data, and construct a web-application for the graphical display and dissemination and of those data.

Terrain Modeling (Wind Turbine Location Assessment & Planning) Project — NERAK
Project Summary: The development of a GIS-based decision support tool for a wind energy consulting firm (NERAK), for use in assessing whether an existing or proposed wind turbine is compliant with government regulations and requirements. Duties and Responsibilities: Developed the model for NERAK Incorporated using ESRI Model Builder and provided the resulting model to NERAK for future wind turbine location assessments.

Redwood Coast Connect; Broadband Infrastructure Mapping Initiative — The California Emerging Technology Fund (CETF), in partnership with the Humboldt Area Foundation (HAF), the Northern California SBDC Network,

Humboldt State University (HSU) and Redwood Coast Rural Action (RCRA)
Project Summary: Redwood Coast Connect was a pilot project to involve the community, local governments, and telecommunications providers in a planning process to work towards ubiquitous broadband to all rural communities in four counties in northern California. Duties and Responsibilities: Developed GIS-based models for use in examining the potential for bringing broadband to rural and unserved housing units through the broad scale expansion of the existing wireline infrastructure. Served as a GIS analyst, database manager, systems administrator, and web developer for this project.

McKinleyville Community Planning Area Residential Development Analysis — The Healthy Humboldt Coalition
Project Summary: An assessment of the potential for unincorporated Humboldt County to accommodate future projected population growth. Duties and Responsibilities: Develop a scenario-based GIS model for calculating the potential of existing undeveloped and underdeveloped lands to accommodate future expected housing needs.

PUBLICATIONS

Sheehan, T., Gough M.O.A., Abatzoglou, J., Ferschweiler, K. and Bachelet D. Utilization of projected climate data in conservation planning decision support models. Conference Paper. 99th ESA Annual Convention 2014

Degagne, R., Gough M.O.A., Sheehan, T. and Strittholt, J. 2014 Tools for balance: Using EEMS logic modeling to support conservation and renewable energy planning in California's deserts. Conference Paper. 99th ESA Annual Convention 2014

Steinberg, S., R. Degagne, and M. Gough. 2008. Broadband demand aggregation: Planning broadband in rural Northern California. Paper Presentation. 28th Annual ESRI International User Conference, San Diego, CA.

Steinberg, S.J., M.D. Smith and M.O.A. Gough, 2007. McKinleyville Community Planning Area Residential Development Analysis

Smith, M.D., S.J. Steinberg and M.O.A. Gough, 2005. Room to Grow? An Assessment of the Potential for Unincorporated Humboldt County to Accommodate Future Projected Population Growth