

Conservation Management (or natural resource management) is the discipline focused on protecting, restoring, and sustainably managing natural resources and ecosystems, balancing ecological health with human needs; students entering this field need to understand ecological principles, biodiversity, land and water management, environmental policy, and the social dimensions of conservation in order to develop practical strategies that address both environmental challenges and community interests. Some of the critical questions that might be addressed with a career in these fields include:

- *How can we most effectively conserve biodiversity in the face of habitat loss, climate change, and invasive species?*
- *How can conservation balance ecological goals with the needs of local communities and indigenous peoples?*
- *What policies and governance structures are most effective in promoting sustainable land and resource management?*
- *How do we measure the economic value of ecosystem services to strengthen conservation arguments?*



Careers

Careers in **Conservation Management** involve working with government agencies, nonprofits, consulting firms, and land trusts to protect biodiversity, restore ecosystems, manage natural resources sustainably, and develop policies that balance environmental and human needs.

Career	Potential Employers
Research and Academia	
Conservation Scientist	Universities, USDA, USGS, Research Institutes
Restoration Ecologist	Universities, Nonprofits, State/Federal Agencies
Wildlife Ecologist	Universities, State/Local Government, NGOs, Federal Agencies (USFWS, NPS)
Resource and Land Management	
Natural Resource Manager	U.S. Forest Service, Bureau of Land Mgmt, State Parks, Private Land Trusts
Park Ranger / Protected Area Manager	National Park Service, State Parks, Local Parks Departments
Land Stewardship Coordinator	Conservation Nonprofits, Land Trusts, Community Organizations
Fisheries and Wildlife Manager	State Fish & Wildlife Agencies, NOAA, NGOs
Policy, Regulation, and Advocacy	
Conservation Policy Analyst	Federal/State Government, Think Tanks, NGOs
Environmental Planner	Local/Regional Planning Agencies, State Agencies, Consulting Firms
Conservation Policy Specialist	NGOs, Federal Agencies (EPA, NOAA), International Organizations (UNEP, IUCN)
Consulting and Applied Conservation	
Environmental Consultant	Private Consulting Firms, Engineering Firms, Contract Work
Ecological Restoration Specialist	Consulting Firms, Nonprofits, State and Federal Agencies
Conservation Analyst	Consulting Firms, Federal Agencies (USGS, NASA), NGOs
Education and Outreach	
Conservation Educator	Nature Centers, Zoos, Museums, Nonprofits
Community Outreach Coordinator	Local Governments, NGOs, Land Trusts
Science Communicator / Writer	NGOs, Media Outlets, Universities, Government Agencies

Coursework & Degree Options

The **Conservation Management** pathway is a reasonable pathway for Environmental Studies, Environmental Science, and Geography majors. Students interested in careers in **Conservation Management** may wish to consider these courses to fill elective requirements within the Environmental majors:



4-cr. Science & Technology laboratory courses:

- GEV 4323 – Watershed Biogeochemistry
- GEV 4363 – GIS for Conservation Management
- GEV 4324 – Wetland Science and Management

3-cr. Science & Technology elective courses:

- GEV 4358 – Environmental Project Management
- GEV 4514 – Geomorphology
- GEV 4301 – QGIS, Story Maps, Dashboarding, Drones, Google Earth Engine (1 credit courses)



3-credit elective Environmental Policy & Management courses:

- GEV 3570 – Land Use Planning and Management
- GEV 3580 – Natural Resources and Conservation
- GEV 4331 – Environmental Policy and Management
- PA 2000 – Public Policy
- PSC 3265 – Global Environmental Politics
- GEV 4336 – Environmental Economics



3-credit elective Environmental Social Science and Humanities courses:

- ETH 3650 – Ethics of the Anthropocene
- HIS 2276 – American Environmental History
- PHI 2121 – Environmental Ethics

Degree Options

- Students may wish to consider a **Double Major in Geography**.

Notes:

- Many careers in the **Conservation Management** pathway will be enhanced by (and some may require) an advanced degree. Students pursuing this pathway may wish to consider graduate program prerequisites.
- Many study abroad programs have courses that are relevant to this pathway and may count towards major requirements. Your academic advisor and the Chair of the Department can provide guidance, along with the Office of Education Abroad, about programs and courses that would be a good fit with this pathway.
- There are additional thematic courses offered every semester that can count towards elective requirements that may be relevant to this pathway.

Alumni Spotlight

Niki (Cleary) Lisi

B.S. Environmental Science and Geography, Class of 2019

North Atlantic Right Whale Coordinator, National Oceanographic and Atmospheric Administration (NOAA)

Niki pursued a Master's in Coastal Environmental Management at Duke University after graduating from Villanova and began working with NOAA in 2021 through a contract with her employer, Ocean Associates. She then became a fulltime employee with NOAA in 2022.

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To learn more about this and other career pathways, use the QR code, contact your academic advisor, or contact the Chair of the Department of Geography and the Environment for guidance.

The GEV Career Pathways Page:

