

ESPP Detailed Keyword Guide

Major keywords (the left-hand column) are listed on the website. **Minor keywords** (right –hand column) can assist you with a more specialized search.

Typing in a major keyword will pull up all mentions of minor keywords in the corresponding right-hand column box as well.

(Minor keywords in bold also appear as major keywords.)

Major keywords	Minor keywords
Africa	Southern Africa, East Africa, South Africa, Lake Victoria, Malawi, Zimbabwe, West Africa
Agriculture	Agricultural, sustainable agriculture, agricultural ecosystem, crop/crops, integrated pest management/ IPM, biological control, farm animals, small agricultural producers, agroecology, agricultural runoff, agricultural policy, agricultural engineering, agricultural landscapes, agricultural standards, agricultural modeling, agricultural systems, agricultural productivity, agricultural waste, manure management, organic agriculture
Alternative energy (See also energy)	Sustainable fuels, biofuels , bioenergy
Animal (See also wildlife)	animal health , farm animals, animal welfare, animal behavior, ethology, CAFOs, invertebrates
Animal health	Chronic Wasting Disease, West Nile Virus, bovine tuberculosis, veterinarian, veterinary toxicology
Anthropology	
Archaeology	
Asia	Philippines, India, China
Assessment	Risk assessment, life cycle assessment/LCA, environmental impact assessment, bioassessment, environmental assessment, biomonitoring
Attitudes	Values, public opinion, norms, persuasion
Biobased	Bioenergy, biofuels , biomaterials, bioeconomy, bioplastics
Biodiversity	
Biofuels (See also alternative energy)	Ethanol, cellulosic ethanol
Biogeochemistry	Biogeochemical
Biology	Plant biology, soil biology, microbiology, conservation biology, statistics in biology, biometry, teaching and learning of biology, computational biology
Biotechnology	
Business	Corporate environmental management, marketing, branding, pollution prevention, consumption, ecolabels, contracts, utilities, manufacturing, food processing, industries, corporate citizenship
Carbon (See also climate change)	Carbon cycles, carbon sequestration, carbon trading
Cartography	

Chemistry	Biochemistry, geochemistry, biogeochemistry/ biogeochemical, carbohydrate chemistry, green chemistry, process chemistry
Classification	Systematics
Climate	Climate change , climatology, climate scenarios, weather
Climate change	Climate change impacts, climate change and the news media, carbon trading, greenhouse gas, nitrous oxide, carbon sequestration
Communication	Rhetoric, technical writing, risk communication
Community	community ecology, community development, community-based management, community preparedness, , community dynamics, fish community, community response, community advocacy
Computational	Computational biology, computational and probabilistic methods, computational modeling, software development, computer science, digital organisms
Conservation	Conservation biology, conservation ecology, soil conservation, energy conservation, water conservation, conservation criminology
Criminal justice	Crime, forensic entomology, compliance, enforcement, sanctions, conservation criminology
Decision making	Decision support systems
Demography	
Development (See also land use)	Redevelopment, regional and urban development, rural development, low impact development, sustainable development, purchase of development right (PDR) programs, transferable development rights
Ecology	Ecological, human ecology, restoration ecology, experimental ecology, cultural ecology, stream ecology, macro ecology, quantitative ecology, community ecology, plant ecology, population ecology, behavioral ecology, evolutionary ecology, aquatic ecology, agroecology, agricultural ecology social ecology
Economic	Economics, socioeconomic, externalities, economic valuation, behavioral economics, game theory, environmental accounting, cost-benefit analysis, ecological economics
Ecosystem	Ecosystem services, ecosystem management
Education	Science education
Energy	Alternative energy , renewable energy, energy conservation, energy consumption, bioenergy, wind power
Engineering	Agricultural engineering, earthquake engineering, environmental health engineering, genetic engineering, water quality engineering, civil infrastructure, membrane, composite materials
Justice (See also ethics)	environmental justice, criminal justice
Ethics	Philosophy, global bioethics
Europe	Ukraine, Eastern Europe, England
Evolution	Experimental evolution, evolutionary ecology, evolutionary change, landform evolution
Fire/ fires	Wildfires
Fish	Fisheries/ fishery, sport fisheries, fish recruitment, aquaculture, fish population dynamics, fish habitat
Food	Food web, food policy, organic food, food safety, food standards, food package, food security, sustainable food systems, food access, food production, food processing

Forest/ forests	Deforestation, timber, logging, tropical forest fires, tropical forests, agroforestry, forested wetlands, forest degradation, forestry management, forest economics, forest policy, boreal forests, forest insects, forest recreation behavior
Genetic/ genetics (See also biotechnology)	Ecological genetics, landscape genetics, genetic algorithms, genomics, genetic engineering
Geographic information systems/ GIS	
Geographical zones*	alpine, tundra, arctic, coastal, tropical
Geography	Plant geography, population geography, biogeography, phylogeography, medical geography, geographic scales, landform origin, geomorphology
Geology	Hydrogeology, geophysics, tectonic plate
Graphic design	Photography, publication design
Grassland/ grasslands/ prairie/ prairies	prairie restoration
Great Lakes	Lake Huron, Lake Michigan, Great Lakes fisheries, Great Lakes wetlands, Great Lakes climate, Great Lakes pollution, Great Lakes history, Great Lakes management
Green building (see also land use and development)	Green roof/ green roofs, green construction, LEED, civil infrastructure
Health	environmental health, disease, pharmaceuticals, cancer, breast cancer, Buruli Ulcer, schistosomiasis, obesity, tuberculosis, reproductive, liver injury, West Nile Virus, emerging diseases, lead poisoning, epidemiology, public health, morbidity, medicine, medical geography, pathogens, stem cells, health disparities, ecological health
Herbicide/ herbicides	
History	Environmental history, prehistoric
Human dimensions	human-wildlife interactions
Indigenous	Native American/ Native Americans, indigenous knowledge, indigenous rights, hunter-gatherers, local knowledge, indigenous community forestry management
Insect/ insects	Pine shoot beetle, black flies, entomology, integrated pest management/ IPM, emerald ash borer, jack pine budworm, gypsy moth/moths, honey bees, insect ecology, forest insects, aquatic insects, insect habitat
International	International development, international policy, international law, international economic exchange
Invasive species	Emerald ash borer, zebra mussels, purple loosestrife, sea lampreys, rusty crayfish, garlic mustard, jack pine budworm, beech bark disease, exotic species, gypsy moth or gypsy moths
Land	land use, land distribution, landscape , land cover, land policy, military lands, land snails, homeland security
Land distribution	Land reform, agrarian reform, land tenure
Land use (See also development and green building)	Sprawl, Smart Growth, land use planning, farmland preservation, land markets, walkable communities, building codes, built environment, land use planning, development

Landscape	Landscape genetics, landscape architecture, therapeutic gardens, landscape effects, landscape ecology, landscape perception, human landscape alteration, landscape change
Latin America	Nicaragua, Colombia, Belize, Costa Rica, Brazil, Mexico, Amazon, Tarascan, Caribbean
Law/ legal	
Management	Risk management, adaptive management, community-based natural resource management, nutrient management, waste management, wildlife management, manure management
Mercury	
Michigan	
Microbial	Microbial ecology, microbial physiology, microbial risk assessment, microbial degradation, microbiology
Model/models/modeling	Simulation modeling
Nanotechnology	Nanostructures
Natural resource	natural resource management, natural resource-based industries, natural resources law, natural resource economics, natural resource crime, human/natural resource interaction, natural-resource based tourism, natural resource conflict
News media	Journalism, reporting, climate change and the news media, Freedom of Information Act
Nitrogen	Nitrogen cycle/ cycles, nitrogen fixing
North America*	Canada, California, Wisconsin, Alaska, Midwest
Nutrient/ nutrients	Nutrient cycles, nutrient loading, phosphorus
Packaging	Sustainable packaging
Paleo	Paleoecology, paleoenvironment, fossils
Pesticides	
Plant/ plants	Pollen, plant breeding, plant biology, plant disease, plant ecology, plant geography, plant growth, plant communities, plant pathology, weed/ weeds
Policy	Regulation, incentives, regulatory, voting, science and policy, environmental policy, land policy, regional planning, institutions, trade
Political	Political sociology, political psychology, political economy, political ecology, political tolerance, politics
Pollution	Pollution treatment , landfills, brownfields, Superfund, hazardous waste, solid waste, runoff, animal waste, fine particles, heavy metals, MTBE, PCBs, xenobiotics, dioxin, radon, VOCs, arsenic, road salt, endocrine disruptors, toxins, nonpoint source pollution, air pollution, water pollution, contaminants, stormwater
Pollution treatment	Water treatment, waste treatment, wastewater recycling, anaerobic digesters, bioremediation, stormwater management, pollution prevention, industrial ecology
Population dynamics	wildlife population dynamics, fish population dynamics
Psychology	Political psychology, preference, choice, cognition, wellbeing
Public participation	Citizen involvement, stakeholders, citizen participation, citizen action, community participation, deliberative processes
Remote sensing	
Restoration	Prairie restoration, wetlands restoration, ecological restoration,

	ecosystem restoration,
Risk (see also decision making)	Risk communication, risk assessment, risk management, precautionary principle
Rural	Rural development, rural areas
Sediments	
Sensors	Biosensors
Social	social movements , social capital, social networks, social ecology, social factors
Social movement/ social movements	Environmental movement, environmental social movements, breast cancer movement
Sociology	Political sociology
Soil	Soils, soil conservation, soil biology, soil chemistry, soil pollution, soil quality, soil ecology, soil management, soil remediation
Species	Species diversity, species interactions, species range
Statistics	Geostatistics, probabilistic methods, multivariate statistics, statistics in biology, biometry
Sustainable	Sustainability, sustainable agriculture, sustainable development, sustainable packaging, sustainable futures
System	Coupled human and natural systems
Tourism	Ecotourism, recreation, natural-resource based tourism, protected areas, tourism planning
Toxicology	Reproductive toxicology, veterinary toxicology, wildlife toxicology
Trade	Fair trade, coffee, fur trade, free trade
United States	
Urban	Cities, urban development, urban housing, urban parks, urban agriculture, urban streams, urban land use
Virus/ viruses	Virology, marine viruses
Volcanoes	
Water	Water quality , aquatic, watershed/ watersheds, floodplain, streams, rivers, lakes, limnology, ponds, drinking water, reservoirs, Sea Grant, coral reefs, groundwater, aquifers, drought, arid, desertification, hydrology, hydrogeology, dam/ dams/ hydropower, glaciers, water rights, plankton, infrastructure
Water quality	Cryptosporidium, giardia, eutrophication, blue-green algae
Wildlife (See also animal)	Wolves, deer, snakes, endangered species, nongame species, pandas, wildlife management, birds, frogs, land snails and slugs, molluscs
Women/ gender	