College fo Natural Science and Mathematics

Dr. Paul W. Layer, Interim Dean

B.S., Biological Sciences

B.S., Wildlife Biology

magna cum laude, B.S., Biological Sciences

B.S., Biological Sciences

B.S., Biological Sciences

B.S., Biological Sciences. Honors Program. *Golden Key Honor Society*

cum laude, B.S., Biological Sciences. *Golden Key Honor Society*

cum laude, B.S., Wildlife Biology. *Golden Key Honor Society*

B.S., Biological Sciences. *Student Ambassador*

B.S., Computer Science

B.S., Wildlife Biology

B.A., Biological Sciences

B.S., Biological Sciences

B.S., Wildlife Biology

B.S., Geology

B.S., Biological Sciences

B.A., Biological Sciences

magna cum laude, B.S., Chemistry. *Golden Key Honor Society*

B.S., Geology

B.S., Biological Sciences

B.S., Statistics

B.A., Biological Sciences. *Golden Key Honor Society*

magna cum laude, B.S., Geology. *Golden Key Honor Society*

cum laude, B.S., Chemistry. *Golden Key Honor Society*

B.S., Wildlife Biology

cum laude, B.S., Mathematics. *Golden Key Honor Society*

B.S., Wildlife Biology

B.S., Statistics; Mathematics

cum laude, B.A., Physics. *Golden Key Honor Society*

B.S., Wildlife Biology

cum laude, B.S., Mathematics. *Golden Key Honor Society*

magna cum laude, B.S., Biological Sciences. *Golden Key Honor Society*

B.S., Wildlife Biology

magna cum laude, B.S., Biological Sciences

B.A., Biological Sciences

cum laude, B.S., Biological Sciences. *Golden Key Honor Society*

B.A., Biological Sciences

cum laude, B.S., Biological Sciences. *Golden Key Honor Society*

cum laude, B.S., Chemistry: Biochemistry/Molecular Biology. *Golden Key Honor Society*

B.A., Earth Science

B.S., Wildlife Biology

B.S., Biological Sciences

B.S., Geology

B.S., General Science. *Golden Key Honor Society*

cum laude, B.A., Biological Sciences. *Golden Key Honor Society*

magna cum laude, B.S., Chemistry: Environmental Chemistry. *Golden Key Honor Society. Phi Kappa Phi Honor Society*

B.S., Computer Science

magna cum laude, B.S., Wildlife Biology. *Honors Program. Golden Key Honor Society*

cum laude, B.S., Computer Science

magna cum laude, B.A., Biological Sciences. *Golden Key Honor Society*

B.S., Computer Science

B.A., Biological Sciences

B.S., General Science

B.S., Computer Science

B.S., Biological Sciences

B.S., Wildlife Biology

B.S., Wildlife Law Enforcement: Interdisciplinary Program

B.S., Wildlife Biology

B.S., Biological Sciences

cum laude, B.S., Physics. Honors Program. *Golden Key Honor Society*

B.S., Computer Science

B.S., Biological Sciences

B.S., Geology

B.S., Biological Sciences

B.S., Computer Science

B.S., Physics. *Golden Key Honor Society*

B.S., Computer Science

B.A., Biological Sciences

B.S., Biological Sciences

B.S., Biological Sciences

cum laude, B.S., Mathematics; Physics. *Golden Key Honor Society*

cum laude, B.S., Computer Science. *Golden Key Honor Society*

magna cum laude, B.S., Wildlife Biology

cum laude, B.A., Earth Science

cum laude, B.S., Biological Sciences. *Golden Key Honor Society*

summa cum laude, B.S., Chemistry: Environmental Chemistry. *Honors Program. Golden Key Honor Society*

B.S., Wildlife Biology

cum laude, B.S., Wildlife Biology. *Golden Key Honor Society*

magna cum laude, B.S., Biological Sciences

B.A., Biological Sciences

M.S.E., Software Engineering. *B.S., University of Alaska Fairbanks, 2005. B.S., University of Alaska Fairbanks, 2006*

M.S., Physics. *B.S., University of Calcutta (India), 1979. M.S., University of Burdwan (India), 1982*

M.S., Atmospheric Sciences. *B.S., James Madison University (Virginia), 2005*

M.S., Biology. *B.S., University of Florida, 2001*

M.S., Atmospheric Sciences. *B.S., Iowa State University, 2006*

M.S., Biology. *B.S., College of William & Mary (Virginia), 1996*

M.S., Biology. *B.S., University of Alaska Fairbanks, 2006*

M.S., Biochemistry and Molecular Biology. *B.S., Kerala Agricultural University (India), 2002*

M.S., Biology. *B.S., University of Alaska Fairbanks, 2007*

M.S., Geophysics: Solid-Earth Geophysics. *B.S., University of California-Santa Barbara, 2005*

M.S., Mathematics. *B.S., Tbilisi State University (Russia), 2004*

M.S., Biology. *B.S., Rowan University (New Jersey), 2000*

M.S., Biochemistry and Molecular Biology. *B.S., University of Alaska Fairbanks, 2001*

M.S., Geophysics: Remote Sensing. *B.S., University of Houston (Texas), 2003*

M.S., Statistics. *B.E., Shanghai Jiao Tong University (People's Republic of China), 2005 and M.S., University of Alaska Fairbanks, 2007*

M.S., Mathematics. *B.S., University of Virginia's College at Wise, 2005*

M.S., Biology. *B.A., University of Maryland, 2004. B.S., University of Maryland, 2004*

M.S., Geophysics: Solid-Earth Geophysics. *B.S., University of South Dakota, 2005. B.F.A., University of South Dakota, 2005*

M.S., Mathematics. *B.S., St. Petersburg University of Information Technologies (Russia), 2004*

M.S., Mathematics. *B.S., Richard Stockton College (New Jersey), 2006*

M.S., Biology. *B.S., University of Alaska Fairbanks, 2005*

M.S., Statistics. *B.A., Ocean University of Qingdao (People's Republic of China), 1992. Ph.D., University of Alaska Fairbanks, 2006*

M.A., Neuroscience: Interdisciplinary Program. *B.A., University of Alaska Fairbanks, 2007*

M.S., Geophysics: Snow, Ice and Permafrost Geophysics. *Golden Key Honor Society. B.S., Northeastern Lower Saxony Technical University (Germany), 1996. M.S., University of Alaska Anchorage, 2001*

M.S., Biology. *B.A., University of North Carolina, 2001*

M.S., Computer Science. *B.S., Boise State University (Iowa), 2003*

M.S., Wildlife Biology. *B.S., University of Alaska Fairbanks, 2002*

M.S., Geology: Remote Sensing. *B.S., University of Alaska Fairbanks, 2004*

M.S., Biology. *B.A., University of Northern Iowa, 2005*

Ph.D. Environmental Chemistry
B.S., Universidad de Puerto Rico, 2003

This research focused on the ionic composition of snow, aerosol particles and frost flowers to understand production of reactive halogens, ozone destruction and deposition of mercury in the Arctic.

Ph.D. Environmental Chemistry
B.S., Texas Tech University, 1996. M.S., Texas Tech University, 2003

Ph.D. Geophysics
B.A., University of California Berkeley, 2001

Four studies focused on the deformation at Okmok Volcano, the Alaska Peninsula and Mt. Veniaminof. The main focus was an examination of the magma plumbing system at Okmok Volcano. An investigation of the subduction zone dynamics along the Alaska Peninsula sheds light on the earthquake potential of the region.

Ph.D. Biological Sciences: Biology
B.S., Florida Atlantic University, 2000. M.S., Colorado State University, 2003

Invasive rat consumption of plants and burrowing seabirds affects vegetation. Seabirds affect vegetation through allochthonous inputs and disturbance. This research examined seed and seedling communities on New Zealand islands with different rat histories and seabird densities. It was determined that invasive rats and burrowing seabirds affect species richness and diversity on islands.

Ph.D. Bioanalytical Chemistry: Interdisciplinary Program
B.S., University of Alaska Fairbanks, 2004

This study examined the geologic setting and geochemical characteristics of Chena and other hot springs in Central and Western Alaska in the context of geothermal energy production. The sustainability of energy extraction from this low-temperature geothermal resource was evaluated, using Chena Hot Springs as a model.

diversity was promoted by repeated dispersal across the Andes, that mid-range populations had higher within-population genetic diversity than range-edge populations, and that insectivorous species maintained greater geographic isolation than species of frugivores and nectivores.

Ph.D. Geophysics
M.S., Oxford University (United Kingdom), 1999. M.E., Heriot Watt University (United Kingdom), 2000

This investigation of the parameters critical in determining the style of magmatic degassing used high pressure-high temperature experiments on volcanic samples which mimic the conditions felt by a magma as it ascends to the surface. Analysis of the bubbly products aids in predicting whether a volcano will erupt explosively.

Ph.D. Biological Sciences: Wildlife Biology
M.S., Carl-von-Ossietzky University of Oldenburg (Germany), 2003

This dissertation explores how winter, spring and summer are linked in King Eiders (Somateria spectabilis). The research found individual variation in movement and breeding strategies, and little evidence for seasonal interactions. King Eiders are a flexible species that may be able to respond to challenges that will result from climate change.

Ph.D. Atmospheric Sciences
B.S., University of Calcutta (India), 2002

Soil-temperatures simulated by the fully coupled Community Climate System Model version 3 were evaluated using gridded Russian soil-temperature climatologies. The performance of a permafrost/soil model fully coupled with a climate model depends partly on the permafrost/soil model itself, the accuracy of the forcing data and design of observational network.

Ph.D. Biological Sciences: Biology

This work rigorously analyzed trumpeter swan survey data collected in Alaska since 1968. Using advanced statistical methods, the researcher determined rates of population change, the effects of environmental change on habitat use, and the influences of habitat features on habitat occupancy throughout the state.

Ph.D. Environmental Chemistry
B.T., Institute of Technology Banaras Hindu University (India), 2003. M.S., University of Alaska Fairbanks, 2004

A detailed experimental investigation of molecular scale structure of the hematite surfaces under hydrated conditions in absence and presence of aqueous Fe(II) is presented. The structural characterization will provide a basis to elucidate surface structure-reactivity relationships for hematite and will aid in developing models of mineral-water interfacial reactivity.

Ph.D. Geology
B.S., Beijing University (People's Republic of China), 1999. M.S., University of Alaska Fairbanks, 2004

The researcher optimized a new method for analyzing the $d^{18}O$ and dD of chironomid chitin for paleoecology research; evaluated the degree to which water and diet influence $d^{18}O$ and dD of chironomids; and then applied this approach to a lake sediment core from southwest Alaska to reconstruct past environmental changes.