Lorena Derežanin, mag.biol.exp.

Experimental biologist and doctoral candidate derezanin@izw-berlin.de

Research fields and interests

Conservation Genomics, Bioinformatics, Evolutionary Biology, Structural Variation

Current projects

- Adaptive genetic variation in mustelid species and the whole genome assembly of the tayra (Eira barbara, Mustelidae)
- Immune gene CNV and disease susceptibility in the endangered black-footed ferret (*Mustela nigripes*, Mustelidae)
- Copy number variation in immune gene families of carnivoran families

Professional experience

Since March 2017	Leibniz Institute for Zoo and Wildlife Research (IZW), Berlin, Germany Doctoral candidate, Department of Evolutionary Genetics Research project: "Gene copy number variation in carnivoran genomes"
2016 - 2017	Leibniz Institute for Zoo and Wildlife Research (IZW), Berlin, Germany Ecological Federal Volunteer (ÖBFD), Department of Wildlife Diseases Molecular analysis and fieldwork in the scope of research of invasive waterfowl species
2013 - 2016	Institute for Research and Development of Sustainable Ecosystems (IRES), Zagreb, Croatia Research Associate Environmental Impact Assessments for Natura 2000 ecological networks

Education

Since	Institute of Biochemistry and Biology, University of Potsdam,
October 2017	Germany
	PhD student, Evolutionary Biology Unit member of the Potsdam Graduate School (POGS)
2009 - 2012	Faculty of Science, University of Zagreb, Croatia Master of Science in Experimental Biology, Dept. of Animal Physiology Master thesis: "Haematology of the Glass Lizard (Pseudopus apodus,

Pallas 1775) in the area of Split and the island of Cres" 2006 - 2009

Faculty of Science, University of Zagreb, Croatia

Bachelor of Science in Biology, Department of Zoology

Bachelor thesis: "Ecology of deep-sea fish species in the Adriatic sea"

Professional skills

Laboratory techniques: high molecular weight (HMW) genomic DNA extraction, 10x Genomics whole genome sequencing (Linked-Read seq. technology), Qubit and TapeStation quality control, Nanodrop spectrophotometry, nested PCR, gel electrophoresis, blood smear preparation, blood cell count, lead concentration analysis (bones, organs)

Fieldwork experience: marine data collection, cannon netting on landfill sites, blood sampling, handling and measuring reptiles, birds and small mammals

Computer skills

Programming: Bash, Python Statistics: R, Statsoft Statistica, PAST

Other: QGIS, ArcGIS, ImageJ

Languages

English - Proficient (C1) German - Independent user (B2)

Croatian - Mother tongue

Courses and training

- Scientific and academic writing, Potsdam Graduate School, Potsdam, 08/2019
- 10x Genomics DNA library preparation course, <u>BeGenDiv</u>, Berlin, 05/2019
- Black-footed ferret conservation genomics project, The Smithsonian Conservation Biology Institute, Washington D.C., USA, research visit, 09/2018 - 10/2018
- Analysis of sequencing data, University of Potsdam, 02/2018-03/2018
- Sequencing bioinformatics course, University of Potsdam, 10/2017 02/2018
- Theory of Science I and II, IZW, Berlin, 01/2018
- "Solving problems in biostatistical analysis and experimental design in the life sciences", statistics course, Dahlem Research School, Free University Berlin, 11/2017

Symposium and workshop (Co-organizer)

- Large Genome Assembly workshop, 03/2019, BeGenDiv, Berlin
- 4th Leibniz PhD Student Symposium, 09/2017, IZW, Berlin

Teaching experience

- Introduction to Bioinformatics, student course, IZW, Berlin, 02/2020, 02/2019
- Introduction to Statistics with R, student course, IZW, Berlin, 02/2020, 02/2019

Professional affiliations (Member and/or Research Collaborator)

- Berlin Bioinformatics Group, since 2019
- European Society for Evolutionary Biology (ESEB), since 2019
- Berlin Center for Genomics in Biodiversity Research (BeGenDiv), since 2018
- Marine Explorers Society <u>20 000 Leagues</u>, 2014 2016
- Association for Nature, Environment and Sustainable Development <u>Sunce</u>, 2014 2015
- Croatian Veterinary Institute, "Monitoring of the influenza virus in wild birds", 2012 2013
- Association for Biological Research <u>BIOM</u>, 2011 2015

Selected conference presentations

- Derežanin L., Kliver S., Tamazian G., Krasheninnikova K., Chan S., Hastie A, Dudchenko O., Aiden E., Earls J., Glasscock J., Phelan R., Ryder O., Johnson W., Pukazhenthi B., Wildt D., Koepfli K.P. (2019) "Low immune-gene diversity and disease susceptibility: implications for the survival of the endangered black-footed ferret (*Mustela nigripes*)", Wildlife Research and Conservation 2019 conference, Berlin, Germany
- Lisičić D., Lovrić V., Počanić P., Derežanin L., Tadić Z. (2012) "Biometrical character displacement in populations of *Pseudopus apodus* from the Island of Cres and in the vicinity of Split", 11th Croatian Biological Congress with international participation

- (Šibenik), Croatian Biological Society, Book of Abstracts, p. 89
- Derežanin L., Miličević T., Žilić I., Počanić P. (2012) "Lichen Flora of the River Zrmanja (Croatia, Europe)", 7th International Association for Lichenology Symposium (Bangkok, Thailand), Ramkhamhaeng University, Book of Abstracts, p. 182

Publications

- Derežanin L., Fickel J., Förster D. (2020) "The complete mitochondrial genome of the meerkat (*Suricata suricatta*) and its phylogenetic relationship with other feliform species", Mitochondrial DNA Part B, 5:1, 1100-1101
- Jovanović Glavaš 0., Počanić P., Lovrić V., Derežanin L., Tadić Z., Lisičić D. (2020)
 "Morphological and ecological divergence in two populations of European glass lizard, Pseudopus apodus (Squamata: Anguidae)", Zoological Research, 41(2): 172-181
- Jakl Z., Šijan M., Prvan M., Sertić M., Čavrak V., Derežanin L., Boi S., Guala I. (2015) "Monitoring of *Posidonia oceanica* meadows in the Telašćica Nature Park (Croatia)", PeerJ PrePrints 3:e1417
- Šegota V., Dekanić S., Derežanin L., Španić R., Pišl Z. (2014) "Study of the environmental impact of the exploitation of building stone on future exploitation site "Gradusa" with the Main assessment of acceptability for the Natura 2000 ecological network", Ministry of Environmental Protection and Energy, Croatia
- Španić R., Skukan R., Jelić D., Šegota V., Derežanin L., Pišl Z., Dekanić S., Oraić D., Turk D. (2013) "Expert report on the accomplishment of the monitoring program in freshwater fisheries in 2013 for fishing area Lika", Ministry of Agriculture, Croatia
- Lisičić D., Počanić P., Lovrić V., Derežanin L., Tadić Z. (2012) "The case of cannibalism in European Glass Lizard, Pseudopus apodus", Herpetological Bulletin Hyla, Vol. 2012., No. 2: 45-46