

## *Curriculum Vitae*

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### PERSONAL INFORMATION

Name: Natalia Juliana Bayona Vásquez  
Address: 150 E. Green St. Athens, GA, 30602.  
Phone: + 1 (706) 206 6864  
E-mail: [njbayonav@gmail.com](mailto:njbayonav@gmail.com)  
Birth date: February 25<sup>th</sup>, 1986  
Country: Colombia  
Profession: Biologist with a Master's in Sciences and Doctorate in Sciences.  
Webpage: <http://njbayona7.wixsite.com/natalia-bayona>  
Interests: I am interested in molecular ecology, genomics and evolution of species of relevance in conservation and environmental science. My research questions are about genetic diversity, population structure, gene flow, phylogenetics, and community composition. Furthermore, I am interested in standardizing and implementing genomic protocols in non-model organisms.

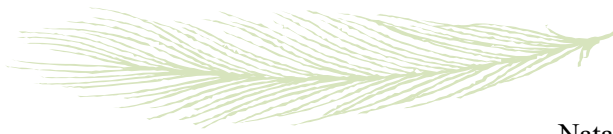
Current Position: Postdoctoral Research Associate. Department of Environmental Health Sciences. Institute of Bioinformatics. University of Georgia.

### ACADEMIC INFORMATION

**Graduate studies:** Doctor in Sciences  
Posgrado en Ciencias del Mar y Limnología  
Universidad Nacional Autónoma de México  
Entry date: 01-2011  
Graduation date: 08-2015

Master's in Sciences.  
Posgrado en Ciencias del Mar y Limnología  
Universidad Nacional Autónoma de México, Mexico  
Entry date: 01-2009  
Graduation date: 01-2011  
Mean grad: 9.78/10

**Undergraduate studies:** Biologist.  
Universidad Nacional de Colombia, Colombia.  
Entry date: 02-2003  
Graduation date: 07-2007  
Mean grad: 4.0/5



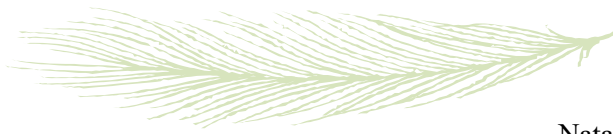
Natalia J. Bayona-Vásquez, Ph.D.

## **WORK EXPERIENCE**

- 2016- Present Postdoctoral Research Associate. Travis Glenn Lab. Department of Environmental Health Sciences and Institute of Bioinformatics. University of Georgia, Athens GA, USA.
- 2016 Visiting Postdoctoral Researcher. Alejandro Zaldivar-Riverón Lab. Entomology Collection. Instituto de Biología. Universidad Nacional Autónoma de México. Mexico.
- 2015–2016 Postdoctoral Researcher. Píndaro Díaz-Jaimes Lab. Laboratory of Genetics of Aquatic Organisms. Instituto de Ciencias del Mar y Limnología. Universidad Nacional Autónoma de México. Mexico.
- 2015 Fellow. Pelágios Kakunjá A.C. for the project funded by Carlos Slim Foundation & World Wildlife Fund.
- 2008 Professional Services. Project ‘Genetic variability of *Gmelina arborea*’. Pizano S.A., Forest Genetic Resources Cooperative from the State University of North Carolina –CAMCORE-, Temasek Life Sciences Laboratory of Singapore University and Conservation Genetics Laboratory of the Universidad Nacional de Colombia. Colombia.
- 2006-2008 Research Assistant. Project ‘Genetic characterization of six freshwater fish species from the San Jorge River Basin’. Conservation Genetics Laboratory. Universidad Nacional de Colombia. Colombia.

## **TEACHING EXPERIENCE**

- 2020 Co-Instructor. Molecular Ecology—GENE4530/ECOL6530. University of Georgia. USA.
- 2019 Co-Instructor. Environmental Genomics—EHSC 8460. University of Georgia. USA.
- 2019 Guest Lecturer. Departmental Seminar —EHSC 8030. Environmental Health Science, University of Georgia, USA. “Genomics in Environmental Sciences”.
- 2019 Co-Instructor. Special Problems, Genomic Analyses —EHSC 8800. University of Georgia, USA.
- 2019 Guest Lecturer. Genetic Applications in Environmental Health Sciences —EHSC 4700. University of Georgia, USA. “Conservation and Environmental Genomics: Study cases and methods in a new era”.



Natalia J. Bayona-Vásquez, Ph.D.

- 2018 Teaching Assistant. Environmental Genomics—EHSC 8460. University of Georgia. USA.
- 2018 Guest Lecturer. First Year Odyssey Seminar —FYOS 1001. University of Georgia, USA. “My experience as an international researcher using DNA”.
- 2011–2014, Co-Instructor. Molecular Ecology and Conservation Genetics. Posgrado en  
2016 Ciencias del Mar y Limnología. Universidad Nacional Autónoma de México. Mexico.

## PUBLICATIONS

Numbered chronologically in each category.

127 citations, *h-index* = 4 at Google Scholar, as of 02/18/2020.

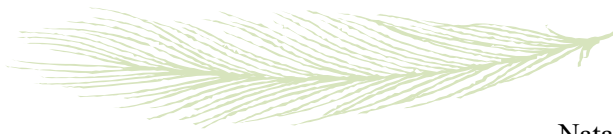
Asterisk (\*) indicate equal contributions.

## PUBLICATIONS IN PRESS IN PEER-REVIEWED JOURNALS

Currently no publications *In Press*.

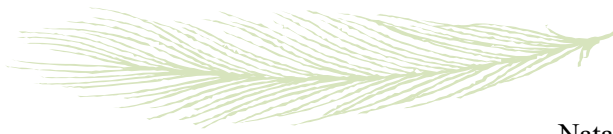
## PUBLICATIONS IN PEER-REVIEWED JOURNALS

18. 2020 HERNÁNDEZ-ÁLVAREZ C\*, BAYONA-VÁSQUEZ NJ\*, DOMÍNGUEZ-DOMÍNGUEZ O, URIBE-ALCOCER M & DÍAZ-JAIMES P. Phylogeography of the Pacific Red Snapper (*Lutjanus peru*) and the Spotted Rose Snapper (*Lutjanus guttatus*) in the inshore Tropical Eastern Pacific. *Copeia*. 108(1): 61-71. DOI: <https://doi.org/10.1643/CG-18-157>.
17. 2020 DELGADO-MACHUCA N, MEZA-LÁZARO RN, ROMERO-NAPOLES J, SARMIENTO-MONROY CE, AMARILLO A, BAYONA-VÁSQUEZ NJ & ZALDÍVAR-RIVERÓN A. Genetic structure, species limits and evolution of the parasitoid wasp genus *Stenocorse* (Braconidae:Doryctinae) based on nuclear 3RAD and mitochondrial data. *Systematic Entomology*. 45(1): 33-47. DOI: <https://doi.org/10.1111/syen.12373>.
16. 2019 GHOSH A, JOHNSON MG, OSMANSKI AB, GLENN TC, LOUHA S, BAYONA-VÁSQUEZ NJ, GONGORA J, GREEN RE, ISBERG S, STEVENS RD & RAY DA. A high-quality reference genome assembly of the saltwater crocodile, *Crocodylus porosus*, reveals patterns of selection in Crocodylidae. *Genome Biology and Evolution* evz269. DOI: <https://doi.org/10.1093/gbe/evz269>.
15. 2019 BAYONA-VÁSQUEZ NJ\*, GLENN TC\*, KIERAN TJ, PIERSON TW, HOFFBERG SL, SCOTT PA, BENTLEY KE, FINGER JR. JW, LOUHA S,

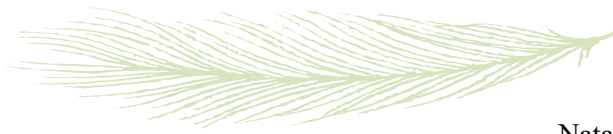


TROENDLE N, DÍAZ-JAIMES P, MAURICIO R & FAIRCLOTH BC. Adapterama III: Quadruple-indexed, double/triple-enzyme RADseq libraries (2RAD/3RAD). *PeerJ* 7:e7724. DOI: <http://doi.org/10.7717/peerj.7724>.

14. 2019 GLENN TC, PIERSON TW, **BAYONA-VÁSQUEZ NJ**, KIERAN TJ, HOFFBERG SL, THOMAS IV JC, LEFEVER DE, FINGER JR. JW, GAO B, BIAN X, LOUHA S, KOLLI RT, BENTLEY K, RUSHMORE J, WONG K, SHAW TI, ROTHROCK JR. MJ, MCKEE AM, GUO TL, MAURICIO R, MOLINA M, CUMMINGS BS, LASH LH, LU K, GILBERT GS, HUBBELL SP & FAIRCLOTH BC. Adapterama II: Universal amplicon sequencing on Illumina platforms (TaggiMatrix). *PeerJ* 7:e7786. DOI: <http://doi.org/10.7717/peerj.7786>.
13. 2019 GLENN TC, NILSEN RA, KIERAN TJ, SANDERS JG, **BAYONA-VÁSQUEZ NJ**, FINGER JR. JW, PIERSON TW, BENTLEY KE, HOFFBERG SL, LOUHA S, GARCÍA-DE LEÓN FJ, DEL RÍO-PORTILLA MA, REED KD, ANDERSON JL, MEECE JK, AGGREY SE, REKAYA R, ALABADY M, BÉLANGER M, WINKER K & FAIRCLOTH BC. Adapterama I: Universal stubs and primers for 384 unique dual-indexed or 147,456 combinatorially-indexed Illumina libraries. *PeerJ* 7:e7755. DOI: <http://doi.org/10.7717/peerj.7755>.
12. 2018 MEZA-LÁZARO RN, POTEAUX C, **BAYONA-VÁSQUEZ NJ**, BRANSTETTER MG & ZALDIVAR-RIVERÓN A. Extensive mitochondrial heteroplasmy in the neotropical ants of the *Ectatomma ruidum* complex (Formicidae: Ectatomminae). *Mitochondrial DNA Part A*. 29(8): 1203-1214. DOI <https://doi.org/10.1080/24701394.2018.1431228>.
11. 2018 DÍAZ-JAIMES P, BONFIL R, PALACIOS-BARRETO P, BOLAÑO-MARTÍNEZ N & **BAYONA-VÁSQUEZ NJ**. Mitochondrial genome of the critically endangered smalltooth sawfish *Pristis pectinata* from Veracruz, Mexico. *Conservation Genetics Resources*. 10(4): 663-666. DOI: <https://doi.org/10.1007/s12686-017-0896-9>.
10. 2018 **BAYONA-VÁSQUEZ NJ**, GLENN TC, URIBE-ALCOCER M, PECORARO C & DÍAZ-JAIMES P. Complete mitochondrial genome of the yellowfin tuna (*Thunnus albacares*) and the blackfin tuna (*Thunnus atlanticus*): notes on mtDNA introgression and paraphyly on tunas. *Conservation Genetics Resources*. 10(4): 697-699. DOI: <https://doi.org/10.1007/s12686-017-0904-0>.
09. 2018 **BAYONA-VÁSQUEZ NJ**, GLENN TC, DOMÍNGUEZ-DOMÍNGUEZ O, URIBE-ALCOCER M & DÍAZ-JAIMES P. Mitochondrial genomes of the Pacific sierra mackerel *Scomberomorus sierra* and the Monterey Spanish mackerel *Scomberomorus concolor* (Perciformes, Scombridae). *Conservation Genetics Resources*. 10(3): 471-474. DOI: <https://doi.org/10.1007/s12686-017-0851-9>.



08. 2017 **BAYONA-VÁSQUEZ NJ**, HERNÁNDEZ-ÁLVAREZ CA, GLENN T, DOMÍNGUEZ-DOMÍNGUEZ O, URIBE-ALCOCER M & DÍAZ-JAIMES P. Complete mitogenome sequences of the pacific red snapper (*Lutjanus peru*) and the spotted rose snapper (*Lutjanus guttatus*). *Mitochondrial DNA Part A*. 28(2): 223-224. DOI: <https://doi.org/10.3109/19401736.2015.1115851>.
07. 2016 DÍAZ-JAIMES P, URIBE-ALCOCER M, ADAMS DH, RANGEL-MORALES JM & **BAYONA-VÁSQUEZ NJ**. Complete mitochondrial genome of the porbeagle shark, *Lamna nasus* (Chondrichthyes, Lamnidae). *Mitochondrial DNA Part B*. 1(1): 730-731. DOI: <http://dx.doi.org/10.1080/23802359.2016.1233465>.
06. 2016 DÍAZ-JAIMES P, **BAYONA-VÁSQUEZ NJ**, ADAMS DH & URIBE-ALCOCER M. Complete mitochondrial DNA genome of bonnethead shark, *Sphyrna tiburo*, and phylogenetic relationships among main superorders of modern elasmobranchs. *Meta Gene*. 7: 48-55. DOI: <https://doi.org/10.1016/j.mgene.2015.11.005>.
05. 2016 BOLAÑO-MARTÍNEZ N, **BAYONA-VÁSQUEZ N**, URIBE-ALCOCER M & DÍAZ-JAIMES P. The mitochondrial genome of the hammerhead *Sphyrna zygaena*. *Mitochondrial DNA Part A*. 27(3): 2098-2099. DOI: <https://doi.org/10.3109/19401736.2014.982574>.
04. 2015 DÍAZ-JAIMES P, **BAYONA-VÁSQUEZ NJ**, HINOJOSA S & URIBE-ALCOCER M. The complete mitogenome of the common dolphinfish (*Coryphaena hippurus*). *Mitochondrial DNA*. 26(6): 959-960. DOI: <https://doi.org/10.3109/19401736.2013.865175>.
03. 2015 **BAYONA-VÁSQUEZ NJ**, DÍAZ-JAIMES P & URIBE-ALCOCER M. Isolation and characterization of microsatellite loci in the common dolphinfish *Coryphaena hippurus* (Perciformes: Coryphaenidae) from next generation sequencing and cross amplification in pompano dolphinfish *Coryphaena equiselis*. *Conservation Genetics Resources*. 7(2): 373-375. DOI: <https://doi.org/10.1007/s12686-014-0372-8>.
02. 2007 **BAYONA-VÁSQUEZ, NJ** & BURBANO MC. New primers for microsatellite loci in *Plagioscion magdalenae* (Pisces: Sciaenidae). *Acta Biológica Colombiana*. 12S:123.
01. 2007 RODRIGUEZ-P E, **BAYONA-V N** & JIMENEZ-A O. Relationship between the shift on tide levels over the abundance on planktonic bioluminescent organisms. *Actualidades Biológicas*. 2007:124.



## PUBLICATIONS SUBMITTED AND IN REVIEW BY PEERS

- XX.** 2019      **DÍAZ-JAIMES P, BAYONA-VÁSQUEZ NJ, ESCATEL-LUNA E, URIBE-ALCOCER M, PECORARO C, ADAMS DH, FRAZIER BS, GLENN TC & BABUCCI M.** Limited dispersal promotes genetic divergence of Bonnethead *Sphyrna tiburo* in the Western North Atlantic. *Aquatic Conservation, Marine and Freshwater Ecosystems*. In Review.

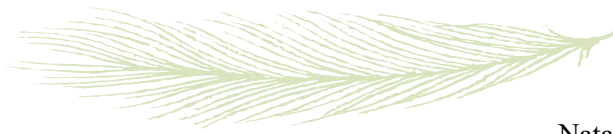
## PUBLICATIONS OF NATURAL HISTORY AND GEOGRAPHIC DISTRIBUTION

- N03.** 2019      **PIERSON TW & BAYON-VÁSQUEZ NJ.** *Eurycea cirrigera* (Southern Two-lined Salamander) communal nesting. *Herpetological Review* 50(3): 544.
- N02.** 2017      **PIERSON TW & BAYONA-VÁSQUEZ NJ.** *Eurycea aquatica* (Brown-backed salamander) and *Eurycea cirrigera* (Southern Two-lined salamander). Hatching. *Herpetological Review* 48(3): 598.
- N01.** 2014      **DURSO AM, CARTER CM, PIERSON TW & BAYONA N.** *Plethodon chattahoochee* (Chattahoochee Slimy Salamander) Habitat. *Herpetological Review* 45(4): 676-677.

## PUBLICATIONS IN CONFERENCE PROCEEDINGS

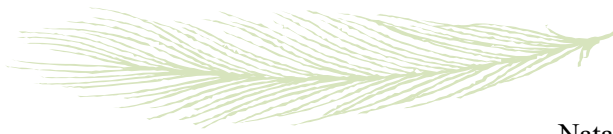
- P15.** 2019      **BAYONA-VÁSQUEZ NJ, GLENN TC, URIBE-ALCOCER M, ORTEGA-GARCÍA S & DÍAZ-JAIMES P.** New genomic resources and population genetics of the cosmopolitan marine pelagic fish, dolphinfish (*Coryphaena hippurus*). 70<sup>th</sup> Tuna Conference Proceedings. Pg. 17
- P14.** 2015      **DÍAZ-JAIMES P, BAYONA-VÁSQUEZ N & URIBE-ALCOCER M.** Population genomics of large pelagic fishes, including tunas and sharks. 66<sup>th</sup> Tuna Conference Proceedings. Pg. 24.
- P13.** 2015      **BAYONA-VÁSQUEZ N, DÍAZ-JAIMES P & URIBE-ALCOCER M.** Global population genetics of dolphinfish (*Coryphaena hippurus*). 66<sup>th</sup> Tuna Conference Proceedings. Pg. 21.
- P12.** 2014      **BAYONA-VÁSQUEZ N, DÍAZ-JAIMES P & URIBE-ALCOCER M.** Population genomics on pelagic fish, protocols and applications. Memories Book. IV Congreso Colombiano de Zoología. I Symposium on Migratory Species.
- P11.** 2014      **BAYONA-VÁSQUEZ N, DÍAZ-JAIMES P & URIBE-ALCOCER M.** Golden legend: Population genetics of dolphinfish *Coryphaena hippurus*.





Memories Book. IV Colombian Congress on Zoology. I Symposium on Migratory Species.

- P10.** 2012 **BAYONA-VÁSQUEZ NJ.** Conservation studies: From genetics to genomics, implications in marine organisms. Memories Book. Second Postgraduate Students Congress. ISBN 978-607-02-3355-5. Pg. 530
- P09.** 2011 **BAYONA-VÁSQUEZ NJ & DIAZ-JAIMES P.** Genetic characterization of dolphinfish *Coryphaena hippurus* from the Pacific Ocean, using microsatellite markers. Memories Book. First Postgraduate Students Congress. First edition. ISBN 978-607-02-2569-7. Pg. 149.
- P08.** 2010 **BAYONA-VÁSQUEZ N, DÍAZ-JAIMES P & URIBE-ALCOCER M.** Genetic characterization of dolphinfish *Coryphaena hippurus* in populations from the Pacific Ocean, using microsatellite data. Abstracts Book. III Colombian Congress of Zoology, Genetic Perspectives Applied in Biodiversity Conservation Symposium. Pg. 20.
- P07.** 2010 **BAYONA-VÁSQUEZ N, DÍAZ-JAIMES P & URIBE-ALCOCER M.** Conservation genetics in marine pelagic species. Abstracts Book. III Colombian Congress of Zoology, Genetic Perspectives Applied in Biodiversity Conservation Symposium. Pg. 22.
- P06.** 2010 **BAYONA VASQUEZ NJ, DÍAZ JAIMES P & URIBE ALCOCER M.** Genetic characterization of dolphinfish *Coryphaena hippurus* in populations from the Pacific Ocean, using microsatellite data. Abstracts Book. XII National Ichthyologic Congress, by the Mexican Ichthyology Society SIMAC. Pg. 44
- P05.** 2008 **BAYONA N & RODRÍGUEZ E.** Marine Regional Ecology of the Cartagena Bay, Cholon Bay, Ciénaga de la Virgen, Ciénaga Grande de Santa Marta. Abstracts Book. SENALMAR. Pg 317.
- P04.** 2008 **BAYONA-VÁSQUEZ N & GALEANO-GALEANO E.** Marine Regional Ecology of Cartagena Bay. Abstracts Book. SENALMAR. Pg. 345.
- P03.** 2006 **RODRIGUEZ-P E, BAYONA-V N & JIMENEZ-A O.** First report of bioluminescent dinoflagellates from the Colombia Caribbean. Abstracts Book. First Congress and Fifth Scientific Meeting of Biology Students.
- P02.** 2007 **RODRIGUEZ-P E, BAYONA-V N & JIMENEZ-A O.** Relation between the shift on tide levels over the abundance on planktonic bioluminescent organisms. Colacmar Vol 2. Abstract number 10833. Pg 284.



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- P01.** 2006 GALLO C & BAYONA N. Pollination interactions among hummingbirds and *Bombus rubicundus* on *Tibouchina grossa*. Abstracts Book. II Colombian Congress of Zoology. Pg 457.

## **MEDIA RESOURCES**

- 2017 Multiple resources and tools for our Adapterama series are available at [baddna.uga.edu](http://baddna.uga.edu).
- 2012 **BAYONA-VÁSQUEZ NJ.** Essay about: “How Next Generation Sequencing Technologies has revolutionized my research program”. [http://evomics.org/registration-form/scholarships/winning-essays/#Natalia Bayona](http://evomics.org/registration-form/scholarships/winning-essays/#NataliaBayona)

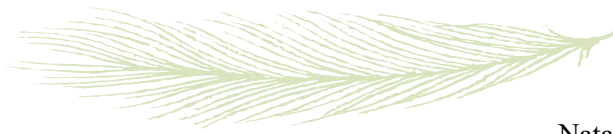
## **CONTRIBUTIONS IN BOOKS**

- 2013 Contribution. GUÍA DE LAS ESPECIES MIGRATORIAS DE LA BIODIVERSIDAD EN COLOMBIA. PECES. VOL 2. *Coryphaena hippurus* Sheet. Pg. 157. ©Ministerio de Medio Ambiente y Desarrollo Sostenible y ©WWF-Colombia. Editores: Luis Alonso Zapata Padilla & José Saulo Usma Oviedo

## **RESEARCH GRANTS, PROJECTS AND CONTRACTS**

- 2018–Present CDC—75D30118C02889, USA. New approaches to improve the efficiency, sensitivity, specificity and standardization of sampling, DNA isolation, shotgun library preparation, and microbiome DNA enrichment and analysis in healthcare settings. GLENN TC. US\$509,880. Role: co-investigator.
- 2016–Present CONACYT 253381, Mexico. Coastal use as nursery areas of bull shark (*Carcharhinus leucas*) and bonnethead shark (*Sphyrna tiburo*), in the Gulf of Mexico and Caribbean. A molecular perspective. DÍAZ-JAIMES, P. ~US\$59,000. Role: co-investigator.
- 2016–2018 UNAM Project PAPIIT IN212816, Mexico. Population genomics of the Eastern Pacific mackerels (*Scomberomorus sierra* and *Scomberomorus concolor*). URIBE-ALCOCER, M. ~US\$26,000. Role: co-investigator.
- 2014–2018 CONACYT 221702, Mexico. Population genomics and demography of dolphinfish (*Coryphaena hippurus*) and yellowfin tuna (*Thunnus albacares*). URIBE-ALCOCER, M. ~US\$80,000. Role: co-investigator.



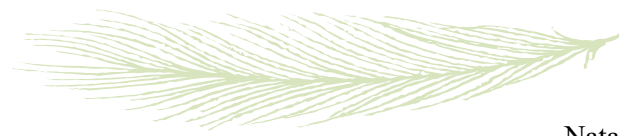


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- 2015–2017 Carlos Slim Foundation & World Wildlife Fund (WWF). Nursery and aggregation areas of sharks in the eastern Pacific: hammerhead, white and Mako sharks. AMEZCUA F & DÍAZ-JAIMES P. ~US\$750,000. Role: Postdoctoral researcher.
- 2015–2017 UNAM Project PAPIIT IG201215, Mexico. Definition of nursery areas in the hammerhead shark *Sphyrna lewini* through the use of genomic methods, trace elements and age structure analyses. DÍAZ-JAIMES, P. ~US\$75,000. Role: key personnel.
- 2013–2015 UNAM Project PAPIIT IN207413, Mexico. Population divergence and historic demography of two red snapper species (*Lutjanus peru* y *L. guttatus*) from the Mexican Pacific Coast. URIBE-ALCOCER, M. ~US\$36,000. Role: key personnel.
- 2012–2014 UNAM Project PAPIIT IN208112, Mexico. Phyloptry in the bull shark (*Carcharhinus leucas*) and bonnethead shark (*Sphyrna tiburo*). DÍAZ-JAIMES, P. ~US\$30,000. Role: key personnel.
- 2010–2011 UNAM Project PAPIIT IN221910, México. Global population structure and phylogeography of dolphinfish *Coryphaena hippurus* using nuclear and mitochondrial markers. DÍAZ-JAIMES, P. ~US\$20,000. Role: key personnel.

## **PARTICIPATION IN OTHER RESEARCH PROJECTS**

- 2012–2018 National Science Foundation. Dimensions: Testing the potential of pathogenic fungi to control the diversity, distribution, and abundance of tree species in a neotropical forest community. HUBBELL S, FAIRCLOTH B, GILBERT G, SAUNDERS M, & GLENN TC. Role: Postdoctoral Researcher.
- 2008 UNAM Project PAPIIT IN208408, Mexico. Comparative Phylogeography of dolphinfish (*Coryphanea hippurus*) and yellowfin tuna (*Thunnus albacares*) from the Pacific Ocean. DÍAZ-JAIMES, P. Role: Student.
- 2006–2008 FONADE-Corporación Regional para los ríos Sinú y San Jorge (CVS), Universidad Nacional de Colombia, Colombia. Genetic characterization of six fish species—*Pseudoplatystoma fasciatum*, *Prochilodus magdalenae*, *Sorubim cuspicaudus*, *Plagioscion magdalenae*, *Hoplias malabaricus* and *Ageneiosus caucanus*— from the San Jorge River basin. BURBANO-MONTENEGRO, MC. Role: Student.



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## RESEARCH ASSOCIATED WITH GRADUATE STUDIES

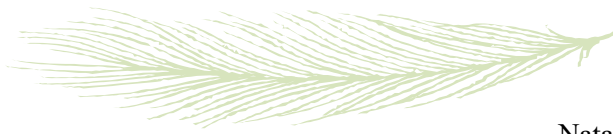
- 2011–2015 Doctorate Thesis, Mexico. Global genetic population structure of dolphinfish (*Coryphaena hippurus*).
- 2009–2011 Master's Thesis, Mexico. Genetic characterization of dolphinfish *Coryphaena hippurus* in the Pacific Ocean using microsatellite markers.

## WORKSHOPS AND TRAININGS

- 2019 Organizer and Instructor. RADcamp 2019— The New York City Edition Workshop. Columbia University (New York, NY, USA)
- 2019 Instructor. Alaska INBRE Bioinformatics Training Workshop. University of Alaska (Fairbanks, AK, USA)
- 2017 Instructor. Training Sessions on RADSeq Bioinformatic Analyses and Population Genetics. University of Georgia (Athens, GA, USA)
- 2017 Instructor. Training Sessions on RADSeq and RADcap Bioinformatic Analyses and Population Genetics. (Aiken, SC, USA)
- 2014 Organizer and Instructor. Workshop on Last Advances in New Generation Sequencing Techniques. Posgrado de Ciencias del Mar y Limnología (Mexico City, Mexico)
- 2012 Instructor. Fragment Analysis Course. Instituto de Biología. Universidad Nacional Autónoma de México (Mexico City, Mexico)

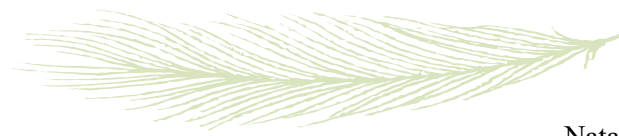
## PARTICIPATION IN SCIENTIFIC EVENTS

- 2020 Seminar Speaker. A genomic perspective on biodiversity: from individuals to communities. Utah Valley University (Orem, UT, USA)
- 2020 Seminar Speaker. Molecular ecology of marine organisms: genomic approaches for measuring diversity and population boundaries. Western Washington University (Bellingham, WA, USA)
- 2020 Speaker. Global population genomics of the Yellowtail kingfish, *Seriola lalandi*. 3<sup>rd</sup> *Seriola* Workshop – National Oceanic and Atmospheric Administration (San Diego, CA, USA)
- 2019 Speaker. The molecular ecologist's guide to RADSeq: a case-study on a cosmopolitan fish. Southeastern Population Ecology and Evolutionary Genetics Conference – SEPEEG (Clemson, SC, USA)



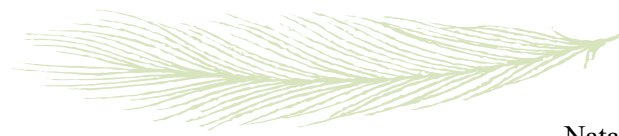
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- 2019 Speaker. New genomic resources and population genetics of the cosmopolitan marine pelagic fish, dolphinfish (*Coryphaena hippurus*). 70<sup>th</sup> Tuna Conference (Lake Arrowhead, CA, USA)
- 2018 Speaker. Population genomics and phylogeography of the cosmopolitan marine pelagic fish, mahi-mahi (*Coryphaena hippurus*). Joint Meeting of Ichthyologists and Herpetologists – JMIH (Rochester, NY, USA)
- 2018 Participant. Biology of Genomes. Cold Spring Harbor Laboratory (Long Island, NY, USA)
- 2017 Visiting Scientist. Gregory Gilbert Lab. Greenhouse and molecular practices for the assessment of pathogenic fungi in forest trees. Smithsonian Tropical Research Institute (Gamboa, Panama)
- 2017 Invited Speaker. Departmental Seminar. From populations to communities: case studies and methods in the genomics era. University of South Carolina Aiken (Aiken, SC, USA)
- 2017 Seminar Speaker. Genomics in the study of marine populations and species. Enthusiast of Diversity, Genetics and Evolution— EDGE. University of Georgia (Athens, GA, USA)
- 2017 Visiting Scientist. Brant Faircloth Lab. Molecular practices for the assessment of pathogenic fungi in forest trees. Louisiana University (Baton Rouge, LA, USA)
- 2016 Speaker. How to process 1500 RADseq samples in a week for \$6/sample. Evolution 2016. Society for the Study of Evolution, American Society of Naturalists and Society of Systematic Biologists (Austin, TX, USA)
- 2016 Visiting Researcher. Dr. Travis Glenn Lab. Environmental Health Sciences. Training in reduced representation libraries and genomic data analysis. Georgia University (Athens, GA, USA)
- 2016 Invited Speaker. Departmental Seminar. Genomic applications for the study of biodiversity. Instituto de Ciencias del Mar y Limnología (Mexico City, Mexico)
- 2015 Speaker. Population genomics of large pelagic fishes, including tunas and sharks. 66<sup>th</sup> Annual Tuna Conference (Lake Arrowhead, CA, USA)
- 2015 Speaker. Global population genetics of dolphinfish (*Coryphaena hippurus*). 66<sup>th</sup> Annual Tuna Conference (Lake Arrowhead, CA, USA)



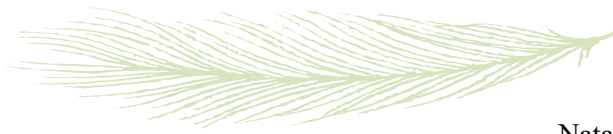
Natalia J. Bayona-Vásquez, Ph.D.

- 2014 Visiting Researcher. Dr. Travis Glenn Lab. Environmental Health Sciences Building. Implementation and developing of genomic libraries. Georgia University (Athens, GA, USA)
- 2014 Speaker. Population genomics on pelagic fish, protocols and applications. IV Colombian Congress of Zoology, Migratory Species Symposium. Asociación Colombiana de Zoología ACZ (Cartagena, Colombia)
- 2014 Speaker. The Golden Legend: Population genetics of dolphinfish *Coryphaena hippurus*. IV Colombian Congress of Zoology, Migratory Species Symposium. Asociación Colombiana de Zoología ACZ (Cartagena, Colombia)
- 2014 Participant. Joint Meeting of Ichthyologists and Herpetologists. American Society Ichthyologists and Herpetologists-Kansas University (Chattanooga, TN, USA)
- 2014 Participant. Workshop on Techniques and Application in Elasmobranch Population Genetics: A workshop to further the field. Save Our Seas – American Elasmobranch Society. Universidad de Tennessee (Chattanooga, TN, USA)
- 2014 Visiting Scholar. Dr. Travis Glenn Lab. Environmental Health Sciences. Genomic libraries preparation for Hi-throughput platform sequences and data analyses. Georgia University (Athens, GA, USA)
- 2012 Participant. RADSeq methodologies for ecological and evolutionary genetic studies. GENECO, Lund University (Lund, Sweden)
- 2012 Participant. Workshop on Genomics and Advance Topic Session on Biopython (Český Krumlov, Czech Republic)
- 2012 Speaker. Conservation studies: From genetics to genomics, implications in marine organisms. 2<sup>nd</sup> Postgraduate Student Congress. Universidad Nacional Autónoma de México (Mexico City, Mexico)
- 2011 Participant. 2011 Annual Symposium by the American Genetic Association-AGA (Guanajuato, Mexico)
- 2011 Participant. NSF-funded Workshop on Next Generation Sequencing. American Genetic Association- AGA (Irapuato, Mexico)
- 2011 Speaker. Genetic characterization of dolphinfish *Coryphaena hippurus* from the Pacific Ocean, using microsatellite markers. 1<sup>st</sup> Postgraduate Students Congress. Universidad Nacional Autónoma de México (Mexico City, Mexico)



Natalia J. Bayona-Vásquez, Ph.D.

- 2010 Participant. VII Latin-American Workshop on Conservation Genetics: ‘Genetics and Biodiversity Conservation’. REGENEC (Petropolis, Brazil)
- 2010 Speaker. Genetic characterization of dolphinfish *Coryphaena hippurus* in populations from the Pacific Ocean, using microsatellite data. III Colombian Congress of Zoology, Genetic Perspectives Applied in Biodiversity Conservation Symposium (Medellín, Colombia)
- 2010 Speaker. Conservation genetics in marine pelagic species. III Colombian Congress of Zoology, Genetic Perspectives Applied in Biodiversity Conservation Symposium (Medellín, Colombia)
- 2010 Speaker. Genetic characterization of dolphinfish *Coryphaena hippurus* in populations from the Pacific Ocean, using microsatellite data. XII National Ichthyologic Congress, by the Mexican Ichthyology Society SIMAC (Nuevo Vallarta, Mexico)
- 2010 Research Internship. Conservation Genetics Laboratory directed by Dr. Francisco García de León. Developing clonal libraries for the discovery and design of microsatellite markers in *C. hippurus*. Centro de Investigaciones Biológicas del Noroeste- CIBNOR (La Paz, Mexico)
- 2009 Participant. Theory-practical Course of Microsatellites by Applied Biosystems México and the Instituto de Biología from Universidad Nacional Autónoma de México (Mexico City, Mexico)
- 2008 Participant. Bioinformatics Course. Bioinformatics Center of the Biotechnology Institute from Universidad Nacional de Colombia (Bogotá, Colombia)
- 2008 Speaker. Marine Regional Ecology of the Cartagena Bay, Cholon Bay, Ciénaga de la Virgen, and Ciénaga Grande de Santa Marta. XIII National Seminar on Marine Science and Technology SENALMAR (San Andrés Islas, Colombia)
- 2008 Speaker. Marine Regional Ecology of Cartagena Bay. XIII National Seminar on Marine Science and Technology SENALMAR (San Andrés Islas, Colombia)
- 2007 Poster. 4<sup>th</sup> Botany Colombian Congress. Colombian Botany Association ACB (Medellín, Colombia)
- 2006 Participant. Second International Seminar on Genomics, Proteomics, Bioinformatics and Systems Biology from la Universidad del Cauca (Popayan, Colombia)



Natalia J. Bayona-Vásquez, Ph.D.

2006 Poster. II Colombian Congress of Zoology. Universidad Nacional de Colombia (Santa Marta, Colombia)

### **PARTICIPATION IN SCIENTIFIC OUTREACH EVENTS**

2015 Talk for Kids. Science Museum UNAM—UNIVERSUM. “Family ties in marine fish”. (Mexico City, Mexico)

### **REPRESENTATIVE PRESENTATIONS & POSTERS AT MEETINGS**

Presenter in *italics*. Asterisk indicates award winning presentation.

2019 Poster. *THOMPSON AT*, FREDERICK JC, **BAYONA-VÁSQUEZ NJ**, GLENN TC, YABSLEY MJ. Population genomics of the invasive tick, *Haemaphysalis longicornis*. Wildlife Disease Association (WDA) 2019 (Lake Tahoe, CA, USA)

2019 Poster. *THOMPSON AT*, FREDERICK JC, **BAYONA-VÁSQUEZ NJ**, GLENN TC, YABSLEY MJ. Population genomics of the invasive tick, *Haemaphysalis longicornis*. Center for Tropical and Emerging Global Diseases 29<sup>th</sup> Annual Molecular Parasitology and Vector Biology Symposium (Athens, GA, USA)

2019 Talk. *SAXON R*, RAMSTAD KM, **BAYONA-VÁSQUEZ NJ** & BRYAN A. Genetic analysis of nest parasitism in American wood storks. Scholar Showcase Research Symposium. University of South Carolina (Aiken, SC, USA)

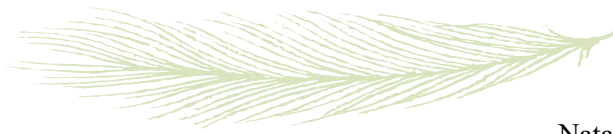
2019 Talk. *HERBERT A*, RAMSTAD KM, **BAYONA-VÁSQUEZ NJ**, NASSIF DEL LAMA S & BRYAN A. Genomic population structure of American wood storks. Scholar Showcase Research Symposium. University of South Carolina (Aiken, SC, USA)

2019 Poster. *SAXON R*, RAMSTAD KM, **BAYONA-VÁSQUEZ NJ** & BRYAN A. Genetic analysis of nest parasitism in American wood storks. Discover USC Research Symposium. University of South Carolina (Aiken, SC, USA)

2019 Poster\*. *HERBERT A*, RAMSTAD KM, **BAYONA-VÁSQUEZ NJ**, NASSIF DEL LAMA S & BRYAN A. Genomic population structure of American wood storks. Discover USC Research Symposium. University of South Carolina (Aiken, SC, USA)

2018 Poster\*. *HERBERT A*, **BAYONA-VÁSQUEZ NJ**, NASSIF DEL LAMA S, LANCE SL, BRYAN A & RAMSTAD KM. Assessing genetic population





Natalia J. Bayona-Vásquez, Ph.D.

structure of American wood storks. USC End of Year Student Research Meeting. University of South Carolina (Aiken, SC, USA)

- 2018 Talk. *MEZA-LÁZARO RN*, CHANTAL P, **BAYONA-VÁSQUEZ NJ**, BRANSTETTER MG, ZALDIVAR-RIVERÓN A. Two mitochondrial genomes coexisting in individuals of the complex *Ectatomma ruidum* (Formicidae:Ectatomminae). 1<sup>st</sup> Mexican Society of Systematics on Arthropods (AMXSA A.C.) Congress (Mexico City, Mexico)
- 2018 Talk. *MACHUCA-DELGADO N*, ZALDIVAR-RIVERÓN A, **BAYONA-VÁSQUEZ N**. Phylogeography of *Stenocorse bruchivora* (Hymenoptera: Braconidae: Doryctinae) using phylogenomic tools. 1<sup>st</sup> Mexican Society of Systematics on Arthropods (AMXSA A.C.) Congress (Mexico City, Mexico)
- 2007 Poster\*. *RODRIGUEZ-P EDITH*, **BAYONA-V NATALIA** & JIMENEZ-A OSCAR. First report of bioluminescent dinoflagellates for the Colombian Caribbean. First Congress and Fifth Scientific Meeting of Biology Students (Bogotá, Colombia).
- 2007 Poster. *RODRIGUEZ-P EDITH*, **BAYONA-V NATALIA** & JIMENEZ-A OSCAR. Relation between the shift on tide levels over the abundance on planktonic bioluminescent organisms. XII Congresso Latino-Americano de Ciências do Mar COLACMAR por Associação Latino-americana de Pesquisadores em Ciências do Mar – ALICMAR e a Associação Brasileira de Oceanografia – AOCEANO (Florianópolis, Brazil).

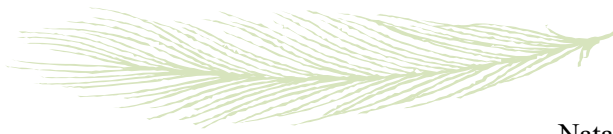
### COMMITTEE MEMBER

- 2016–Present Fernando Mar. Doctorate in Science student. Posgrado en Ciencias del Mar y Limnología. Universidad Nacional Autónoma de México (UNAM).
- 2016–Present Carolina Serrano. Master's in Science student. Posgrado en Ciencias del Mar y Limnología. Universidad Nacional Autónoma de México (UNAM).
- 2016–Present Arturo Morales. Master's in Science student. Posgrado en Ciencias del Mar y Limnología. Universidad Nacional Autónoma de México (UNAM).

### STUDENT MENTORING

Eight undergrads and 21 graduate students at both master's and doctorate level.

- S29.** 2019–Present UGA. Karen Bobier. PhD student.
- S28.** 2018–Present UGA. Alec Thompson. PhD student.
- S27.** 2018–Present UGA. Megan Sara Beaudry. PhD student.
- S26.** 2018–Present UGA. Julia Frederick. PhD student.



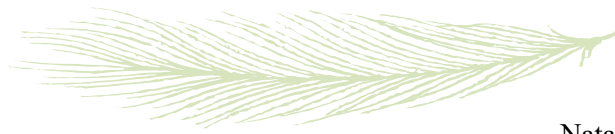
<b>S25.</b> 2018-Present	USC. Rachel Saxon. Undergraduate student.
<b>S24.</b> 2018-Present	USC. Austin Herbert. Undergraduate student.
<b>S23.</b> 2017	UGA. Lily Wang. Undergraduate student.
<b>S22.</b> 2017	IVIC. Ariel Espinosa Blanco. PhD student.
<b>S21.</b> 2017	SREL. Cara Love. PhD student.
<b>S20.</b> 2017	SREL. Joshua Zajdel. Master's student.
<b>S19.</b> 2016-2017	UGA. Jesse C. Thomas. PhD student.
<b>S18.</b> 2016-Present	UGA. Troy Kieran. PhD student.
<b>S17.</b> 2016-2018	UGA. Maddy Ryan Watson. Master's student.
<b>S16.</b> 2016-2018	UNAM. Natalia Delgado Machuca. Master's student.
<b>S15.</b> 2016-Present	UNAM. Fernando Mar. PhD student.
<b>S14.</b> 2016-Present	UNAM. Arturo Morales. Master's student.
<b>S13.</b> 2016	UNAM. Pedro Castro. Undergraduate student.
<b>S12.</b> 2015-Present	UNAM. Carolina Serrano. Master's student.
<b>S11.</b> 2014-2016	UNAM. Jose Miguel Rangel. PhD student.
<b>S10.</b> 2014-2016	UNAM. Andrea Marcela Mar Ramírez. Master's student.
<b>S09.</b> 2014-2016	UNAM. Paola Palacios Barreto. Master's student.
<b>S08.</b> 2014-2015	UNAM. Gabriela Andrade. Undergraduate student.
<b>S07.</b> 2014-2015	UNAM. Cristóbal Hernández-Álvarez. Undergraduate student.
<b>S06.</b> 2013-2016	UNAM. Elena Escatel Luna. PhD student.
<b>S05.</b> 2013-2015	UNAM. Josué Barranco. Undergraduate student.
<b>S04.</b> 2012-2015	UNAM. Erika Magallón Gayón. PhD student.
<b>S03.</b> 2011-2016	UNAM. Nadia Sandoval Laurraquío. Master's and PhD student.
<b>S02.</b> 2011-2015	UNAM. Nataly Bolaño-Martinez. PhD student. PCML—UNAM
<b>S01.</b> 2011-2013	UNAM. Linda Marisol García Areas. Undergraduate student.

## **JOURNAL REVIEW SERVICES**

2019	Reviewer. Aquatic Conservation: Marine and Freshwater Ecosystems.
2019	Reviewer. Freshwater Biology.
2018–2019	Reviewer. Conservation Genetics Resources.
2017–2019	Reviewer. Molecular Ecology Resources.
2016	Reviewer. Fisheries Research.
2015	Reviewer. Briefings in Functional Genomics.
2013	Reviewer. Boletín de Investigaciones Marinas y Costeras.

## **SOCIETY, ASSOCIATIONS AND ACADEMIC MEMBERSHIPS**

2019–Present	Women In Science Mentor Program at UGA.
2019–Present	Friends of the Georgia Museum of Natural History.
2018–Present	Member. American Society of Ichthyologists & Herpetologists.
2018–2019	President of the Postdoctoral Association of the University of Georgia.
2016–Present	Member. Postdoctoral Association University of Georgia.
2015–Present	Postdoctoral Member. Society for the Study of Evolution SSE.
2011–2012	Student Member. American Genetic Association AGA.

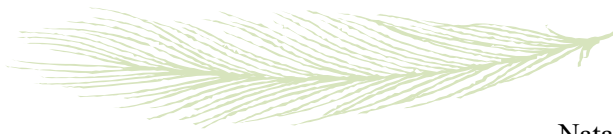


Natalia J. Bayona-Vásquez, Ph.D.

2006–Present Founder Member. Asociación Colombiana de Zoología. ACZ

### PROFESSIONAL AWARDS, STIPENDS AND RECOGNITIONS

- 2019 Funding from the Society for the Study of Evolution (SSE), Society of Systematic Biologists (SSB), City University of New York (CUNY), and Columbia University for the workshop RADCamp NYC 2019.
- 2019 Travel and Registration stipend from the 2019 Tuna Conference Dolphinfish Symposium Review Committee to attend the 70<sup>th</sup> Tuna Conference in Lake Arrowhead, California, USA (US\$2,000)
- 2018 Travel stipend from the Postdoctoral Association of the University of Georgia to attend to the Joint Meeting of Ichthyologists and Herpetologists in Rochester, New York, USA (US\$700)
- 2016 Travel stipend from the Society for the Study of Evolution to attend the Evolution meeting 2016 in Austin, Texas, USA (US\$1,500)
- 2016 Postdoctoral fellowship grant to conduct studies on “Population genomics and demography of dolphinfish (*Coryphaena hippurus*) and yellowfin tuna (*Thunnus albacares*)” from CONACYT-Mexico
- 2016 Grant for six months for research salary from Pelagios Kankunjá and Carlos Slim Foundation for the project “Definition of nursery areas in the hammerhead shark *Sphyrna lewini*”
- 2015 Honorable mention to Doctorate thesis: “Genetic population structure across its distribution range, *Coryphaena hippurus*”. Posgrado en Ciencias del Mar y Limnología. Universidad Nacional Autónoma de México
- 2015 Four-months grant for research from PAPIIT Project “Definition of nursery areas in the hammerhead shark *Sphyrna lewini* through the use of genomic methods, trace elements and age structure analysis”
- 2014 Funding from “Programa de Fortalecimiento Académico del Posgrado de Alta Calidad” CONACYT to organize and teach, in collaboration with Dr. Brant Faircloth, the Workshop on Last Advances in New Generation Sequencing Techniques. Posgrado de Ciencias del Mar y Limnología (Mexico City, Mexico) (US\$2,500)
- 2012 Stipend for attendance to the Workshop on Genomics in Český Krumlov by the evomics.org group (US\$1,000)
- 2011 Grant for four years of monthly salary to conduct doctorate studies at Posgrado en Ciencias del Mar y Limnología by CONACYT-Mexico



- 2011 Honorable mention to master thesis: “Genetic characterization of the dolphinfish *Coryphaena hippurus* from Pacific Ocean populations using microsatellite markers”. Posgrado en Ciencias del Mar y Limnología. Universidad Nacional Autónoma de México
- 2009 Grant for two years of monthly salary to course master studies at Posgrado en Ciencias del Mar y Limnología by CONACYT
- 2007 Best poster in the Marine Ecology Area: “First report of bioluminescent dinoflagellates for the Colombia Caribbean”. First Congress and Fifth Scientific Meeting of Biology Students

## **MOLECULAR AND BIOINFORMATIC SKILLS**

### Laboratory

DNA sampling and isolation, DNA quantification, purification, PCR, qPCR, sanger sequencing, polymer gels (acrylamide and agarose), genotyping, cloning, RADSeq libraries, shotgun genomic libraries, 10X genomic libraries prep, experience with Next Generation Sequencing Platforms as: Illumina (MiSeq, NextSeq, HiSeq, NovaSeq) and PacBio (Sequel Prep and Sequel Prep II).

### Computational

Linux/OS/Windows

Proficient in R language and statistical packages.

Familiar with Python and BioPython.

Miscellaneous software: Genemapper®, Geneious®, CLC Workbench®, Genepop, BioEdit, Arlequin, DnaSP, a variety for population genetics tests.

Use of variety of pipelines for high-throughput data accession, quality filter and analyses (bcl2fastq, BLAST, samtools, bwa, Qiime, Stacks, ipyRAD, SuperNova, etc.), Bayesian analyses, Maximum likelihood analyses (Mr. Bayes, BEAST, RAxML, Structure, etc).