Fernando de Pol Mayer

Curriculum Vitæ

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Education

2013–current	**Statistics & Experimentation**, *Universidade de São Paulo (USP)*, Ph.D.
	Bayesian spatio-temporal modelling for zero-inflated and overdispersed count data (provisory).
Advisor	Paulo Justiniano Ribeiro Jr.
2008–2011	**Ecology**, *Universidade Federal de Santa Catarina (UFSC)*, M.Sc.
	Probabilistic models for zero-inflated and overdispersed count data in commercial fisheries.
Advisor	Humber Agrelli Andrade
2000–2005	**Oceanography**, *Universidade do Vale do Itajaí (UNIVALI)*, B.Sc.
	Swordfish (*Xiphias gladius*) fishery in southwestern Atlantic: fleet dynamics and Catch Per Unit Effort (CPUE) influencing factors.
Advisor	Humber Agrelli Andrade

Complementary training

Internship

2006	**UNIVALI**.
	Voluntary teaching assistant for "Statistics" course in Oceanography undergraduate.
2000–2005	**Biological Oceanography Laboratory, UNIVALI**.
	Several studies developed including fisheries statistics and modelling.

Courses taken

2013	**USP**, *15h*, Introduction to categorical data analysis.
2013	**USP**, *25h*, Integral and differential calculus.
2013	**USP**, *25h*, Probability.
2013	**USP**, *25h*, Matrices.
2012	**USP**, *6h*, Non-linear mixed models in R.
2012	**USP**, *6h*, Computational methods for inference with R.
2011	**UFPR**, *6h*, Data structures for spatial-temporal modelling.
2011	**UEM**, *6h*, Modelling Statistics of Extremes.
2011	**UEM**, *6h*, Introduction to stochastic simulation and modelling.
2010	**UFSC**, *6h*, Multiple imputation and its applications.
2009	**UFSCar**, *6h*, Hierarchical Generalized Linear Models.
2009	**UFSCar**, *6h*, Linear Mixed Models.
2009	**SEB**, *8h*, Experiments in ecology.
2009	**UFPR**, *9h*, Programming statistical methods integrating C and R languages.

2007 **UFPR**, *21h*, Effective statistical modelling with R.

Experience

Professional experience

2011–2012 **Universidade Federal de Santa Catarina (UFSC).**
Assistant professor for Oceanography and Biological Sciences undergraduate courses.
Disciplines taught:
- Fisheries Resources
- Population Ecology
- Informatics for the Biological Sciences

2010–2011 **Fisheries and Aquaculture Ministry (MPA) and Organization of Ibero-American States for Education, Science and Culture (OEI).**
Consultant in fisheries statistics. Consolidated Brazilian fisheries statistics for 2008–2010 through multiple imputation methods.

2006–2008 **Universidade do Vale do Itajaí (UNIVALI), Fisheries Study Group (GEP).**
Tuna fisheries statistics and data analysis.

Courses taught

2012 **Instituto Albatroz**, *16h*, Introduction to R programming language for statistical modelling.

2012 **UNIVALI**, *16h*, Introduction to R programming language.

2011 **UNIVALI**, *16h*, Introduction to R programming language.

2010 **UFSC**, *12h*, Introduction to R programming language.

2007 **UNIVALI**, *12h*, Introduction to R programming language.

Interests

Applied statistics

Statistical computing

Natural resources management

Computational skills

Operating Systems Linux, Mac OS, Windows

Programming Languages R, Fortran, HTML, LaTeX

Tools git, Shell

Languages

Portuguese **Native**

English **Advanced** *Test of English language proficiency: IELTS band 7 (September, 2009)*

Grants

2009-2010   **REUNI/CAPES**.
Scholarship (M.Sc).

2008-2009   **CNPq**.
Research project funding (colaborator).

2004–2005   **ProBIC/UNIVALI**.
Scientific initiation scholarship.

2000-2003   **Federal Government/UNIVALI**.
Scholarship (internship).

Awards

2005   **Universidade do Vale do Itajaí (UNIVALI)**.
Academic Merit (academic achievement, participation in technical and scientific activities and the experiences of values and ethical attitudes during the academic life).

Publications

Peer-reviewed publications

1. Bender, M. G.; Floeter, S. R.; Mayer, F. P.; Vila-Nova, D. A.; Longo, G. O.; Hanazaki, N.; Carvalho-Filho, A.; Ferreira, C. E. L. 2013. Biological attributes and major threats as predictors of the vulnerability of species: a case study with Brazilian reef fishes. **Oryx** (Oxford Print), *in press*. DOI: 10.1017/S003060531100144X

2. Mayer, F. P.; Andrade, H. A. 2008. Size of yellowfin tuna (*Thunnus albacares*) caught by pole-and-line fleet in the southwestern Atlantic ocean. **Brazilian Journal of Aquatic Science and Technology**, 12(1): 59–62.

3. Andrade, H. A.; Pereira, M. D.; Mayer, F. P. 2007. Alternative methods for calculating catch-per-unit-effort for skipjack tuna (*Katsuwonus pelamis*) caught in the southwestern Atlantic ocean. **Brazilian Journal of Aquatic Science and Technology**, 11(2): 63–66.

4. Mayer, F. P, Andrade, H. A. 2005. Swordfish (*Xiphias gladius*) and blue shark (*Prionace glauca*) fishery and the dynamics of the fleet off southeastern brazilian coast. **Collective Volume of Scientific Papers, ICCAT**, 58(3): 1204–1214.

5. Mayer, F. P, Andrade, H. A. 2003. Catch, effort and CPUE of swordfish (*Xiphias gladius*) landed in Santa Catarina in 2000 and 2001. **Notas técnicas da FACIMAR**, 7: 23–36. (*In portuguese*).

Books

1. Hanazaki, N.; Petrucio, M. M.; Zank, S.; Mayer, F. P. 2009. Introduction to Ecology. 2. ed. Florianópolis: Biologia/EaD/UFSC, 85 p., ISBN 978-85-61485-22-1. (*In portuguese*).

Extended abstracts

1 Mayer, F. P.; Bonat, W. H.; Ribeiro Jr., P. J. 2011. Spatio-temporal modelling of catches in commercial fisheries trough hierarchical Bayesian models with latent Gaussian structure. *In:* 56 Annual Brazilian Region meeting of the International Biometric Society. (*In portuguese*).

2 Mayer, F. P. 2009. Count data models considering overdispersion and excess zeros for abundance estimates of uncommon species in commercial fisheries. *In:* 54 Annual Brazilian Region meeting of the International Biometric Society. (*In portuguese*).

Reports

1 Mayer, F. P.; Sant'Ana, R. 2011. Methodology used for the consolidation of national fisheries statistics for 2010 and data compilation for the statistical bulletin of fisheries and aquaculture. *Report for MPA/OEI*. (*In portuguese*).

2 Mayer, F. P. 2010. Methodology used for the consolidation of national fisheries statistics for the period 2008–2009 and data compilation for the statistical bulletin of fisheries and aquaculture. *Report for MPA/OEI*. (*In portuguese*).

3 Mayer, F. P.; Andrade, H. A. 2005. Using a delta-lognormal Generalized Linear Model (GLM) in the analysis of swordfish (*Xiphias gladius*) catch data from the southwestern Atlantic. *Report for the scientific initiation scholarship — ProBic/UNIVALI*. (*In portuguese*).

4 Mayer, F. P.; Andrade, H. A. 2004. Study of the factors influencing the swordfish (*Xiphias gladius*) CPUE captured in the southwestern Atlantic through Generalized Linear Models (GLM). *Report for the scientific initiation scholarship — ProBic/UNIVALI*. (*In portuguese*).