

CURRICULUM VITAE

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PERSONAL ANTECEDENTS

Name: Juan **Antonio Baeza** Migueles

Date of Birth: March 3, 1971.

Place of Birth: Puerto Ordaz, Venezuela

Nationality: Chilean

Status: single

Permanent address: 124 Jomela Street, Apart. #39, Lafayette, LA 70503.

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EDUCATION

1990-95 Licentiate in Marine Sciences (with Distinction), Universidad Católica del Norte, Chile.

1990-99 Marine Biologist (with Distinction), Universidad Católica del Norte, Chile.

1996-99 Master in Marine Sciences (with Maximum Distinction), Universidad Católica del Norte, Chile (1999).

2001- PhD candidate student. The University of Louisiana at Lafayette, USA (one year or less to completion).

DISSERTATIONS & THESES

- Baeza, J.A. 1995. Indication of territoriality and the host–use pattern of the porcellanid commensal crab Allopetrolisthes spinifrons (H. M. Edwards, 1837) (Decapoda: Porcellanidae) in the rocky intertidal of La Pampilla, Coquimbo, Chile. 66 p. **(LSc)**
- Baeza, J.A. 1999. Territoriality and the agonistic behaviour of Allopetrolisthes spinifrons (H. Milne Edwards, 1837) (Decapoda: Anomura: Porcellanidae): ontogenetic changes and temporal variability. 76 pp. **(Marine Biologist)**
- Baeza, J.A. 1999. Host use pattern and host selection by different ontogenetic stages of Allopetrolisthes spinifrons (H. Milne Edwards, 1837) (Decapoda: Anomura: Porcellanidae). 136 pp. **(MSc)**
- Baeza, J.A. 2005-6. Experimental test of sex allocation theory during the ontogeny of the protandric simultaneous hermaphrodite Lysmata wurdemanni (Crustacea: Decapoda: Caridea). **(PhD, under completion)**

APPOINTMENTS

- 2001 **Internship.** Alfred Wegener Institut für Polar und Meeresforschung (AWI), Bremerhaven, Germany (research & discussion, one month).
- 1999–2001 **Research associate.** Coastal Station for Marine Research (ECIM) of the Pontificia Universidad Católica de Chile. Las Cruces, Chile (full time research position).
- 1998 **Research associate.** Regional Center for Fisheries Research (CRIP) at Puerto Morelos. Quintana Roo. Mexico (full time research position).

PUBLICATIONS (ORIGINAL PAPERS, 20)

- Baeza**, J.A., and R.T. Bauer. 2004. Experimental test of social mediation of sex change in a protandric sequential hermaphrodite; the marine shrimp Lysmata wurdemanni (Crustacea: Caridea). *Behavioral Ecology and Sociobiology* 55: 544–550.
- Thiel, M., A. Zander, N. Valdivia, J.A. **Baeza** & C. Rüdfler. 2003. Host fidelity of a symbiotic porcellanid crab – the importance of host characteristics. *Journal of Zoology* 261(4): 353-362.
- Thiel, M., A. Zander and J.A. **Baeza**. 2003. Symbiont host-movements: the case of Liopetrolisthes mitra, a small crab inhabiting the sea urchin Tetrapyqus niger. *Bulletin of Marine Science*. 72(1): 89-101.
- Correa, C., J.A. **Baeza**, I.A. Hinojosa & M. Thiel. 2003. Alternative mating tactics in the rock shrimp Rhynchocinetes typus (Decapoda: Caridea). *Journal of Crustacean Biology*. 23(1): 33–45.
- Baeza**, J.A. & M. Thiel. 2003. Predicting territorial behavior in symbiotic crabs using host characteristics: A comparative study and proposal of a model. *Marine Biology* 142 (1): 93–100.
- Baeza**, J.A. & W. Stotz. 2003. Host–use and selection of differently–colored sea anemones by the symbiotic crab Allopetrolisthes spinifrons. *Journal of Experimental Marine Biology and Ecology* 284 (1–2): 25–39.
- Fernández, M., L.M. Pardo & J.A. **Baeza**. 2002. Patterns of oxygen supply in embryo masses of Brachyuran crabs throughout development: the effect of oxygen availability and chemical clues. *Marine Ecology Progress Series*. 245: 181–190.
- Baeza**, J.A., Stotz, W. & M. Thiel. 2002. The agonistic behaviour and development of territoriality during ontogeny of the sea anemone dwelling crab Allopetrolisthes spinifrons. *Marine and Freshwater Behaviour and Physiology* 35 (4): 189–202.

- Baeza**, J.A. & M. Fernández. 2002. Active brood care in Cancer setosus (Crustacea: Decapoda: Cancridae): the relationship between female behaviour, embryo oxygen consumption, and the cost of brooding. *Functional Ecology* 16 (2): 241–251.
- Förster, C. & J.A. **Baeza**. 2001. Active brood care in the anomuran crab Petrolisthes violaceus (Decapoda: Anomura: Porcellanidae): grooming of brooded embryos by the fifth pereopods. *Journal of Crustacean Biology* 21 (3) : 606–615.
- Thiel, M. & J.A. **Baeza**. 2001. Factors affecting the social behaviour of symbiotic Crustacea: a modelling approach. *Symbiosis* 30 (2&3) : 163–190.
- Baeza**, J.A., Thiel, M. & W. Stotz. 2001. The life history history of Allopetrolisthes spinifrons, a crab associate of the sea anemone Phymactis clematis. *Journal of the Marine Biological Association of the United Kingdom* 81 (1) : 69–76.
- Baeza**, J.A. & W. Stotz. 2001. Host–use pattern and host selection during ontogeny of the commensal crab Allopetrolisthes spinifrons (H. M. Edwards, 1837) (Decapoda: Anomura: Porcellanidae). *Journal of Natural History* 35 (3) : 341–355.
- Correa, C., J.A. **Baeza**, E. Dupré, I.A. Hinojosa & M. Thiel. 2000. Mating behaviour and fertilization success of three ontogenetic stages of male rock shrimp Rhynchocinetes typus (Decapoda : Caridea). *Journal of Crustacean Biology* 20 (4) : 628–640.
- Baeza**, J.A. & M. Thiel. 2000. Host use pattern and life history of Liopetrolisthes mitra, an associate of the black sea urchin Tetrapyrgus niger. *Journal of the Marine Biological Association of the United Kingdom* 80: 39–45.
- Baeza**, J.A. & M. Basurto. 1999. The effect of two external tags in the survival of the bonefish Albula vulpes (Linnaeus), in the Reserve of the Biosphere “Sian Ka’an”, México. *Revista de Investigaciones Marinas, Cuba* 20 (1–3): 4–7 (In Spanish).
- Baeza**, J.A. 1999. Indicators of monogamy in the commensal crab Pinnixa transversalis (Milne Edwards & Lucas) (Decapoda: Brachyura: Pinnotheridae): population distribution, male-female association, and sexual dimorphism.

Revista de Biología Marina y Oceanografía, Valparaíso 34 (2): 303–313 (In Spanish).

Baeza, J.A. & W. Stotz. 1998. Habitat selection during larval settlement of *Allopetrolisthes spinifrons* (H. Milne Edwards, 1837) (Decapoda: Anomura: Porcellanidae), a commensal crab of the sea anemone *Phymactis clematis* (Drayton, 1798) (Coelenterata: Anthozoa). *Revista de Biología Marina y Oceanografía, Valparaíso* 33 (2): 331–343 (In Spanish).

Baeza, J.A., David Véliz, Luis M. Pardo, Karin Lohrmann, & Chita Guisado. 1997. A new polyclad flatworm, *Tytthosoceros inca* (Platyhelminthes: Polycladida: Cotylea: Pseudocerotidae), from Chilean coastal waters. *Proceedings of the Biological Society of Washington* 110 (3): 476–482.

Baeza, J.A. & W. Stotz. 1995. Population structure of the porcellanid commensal crab *Allopetrolisthes spinifrons* (H. M. Edwards, 1837) (Decapoda: Porcellanidae) on its commonly reported host *Phymactis clematis* (Drayton, 1846) (Actiniaria) and on two new hosts. *Revista de Biología Marina, Valparaíso* 30 (2): 255–264 (In Spanish).

PUBLICATIONS (BOOK CHAPTERS, 2)

Baeza, J.A. & M. Thiel. The mating system of symbiotic crustaceans: a conceptual model based on optimality and ecological constraints. In: *Ecology and Evolution of Social Behavior: Crustaceans as Model Systems* (J.E. Duffy and M. Thiel, eds). Oxford University Press. In review.

Baeza, J.A., Correa C. & M. Thiel. Reproducción sexual. In: *Introducción al Comportamiento Animal* (M. Penna, R. Solis, A. Labra, H. Torres-Contrera, and R Vásquez, eds). Editorial Universitaria, Chile. In review.

PUBLICATIONS (ABSTRACTS & EXTENSION, 2)

- Baeza**, J.A. 2004. Local mate competition does affect sex allocation in a protandric simultaneous hermaphrodite with low risk of sperm competition. *Integrative and Comparative Biology* 44(6): 519.
- Thiel, M. & J.A. **Baeza**. 2002. Behavioural ecology of symbiotic crabs from south-eastern Pacific shores. *Marine Biological Association News* 27: 9.

SEMINARS & INVITED SYMPOSIUM PRESENTATIONS

- 2005 **Baeza**, J.A. "Sexual systems as variations of a single theme: what can we learn from "unique" hermaphrodites?" dictated at *The University of Louisiana at Lafayette*, Lafayette, USA.
- 2003 **Baeza**, J.A. & M. Thiel. "The mating system of symbiotic crustaceans: A model based on cost-benefit analysis and environmental constraints" dictated at Symposium on **the Social Behaviour of Crustacea**: Summer Meeting of The Crustacean Society. Williamsburg, Virginia, U.S.A .
- 2000 **Baeza**, J.A. "The cost and benefits of active brood care in decapod crustaceans" dictated at *Universidad Católica del Norte*, Coquimbo, Chile.
- 1998 **Baeza**, J.A. "Host use pattern and host selection by different ontogenetic stages of the commensal crab Allopetrolisthes spinifrons (H. Milne Edwards 1837) (Decapoda: Anomura: Porcellanidae)" dictated at *Centro Regional de Investigación Pesquera (CRIP)*, Puerto Morelos, Quintana Roo, México.
- 1998 **Baeza**, J.A. "Host use pattern and host selection by different ontogenetic stages of the commensal crab Allopetrolisthes spinifrons (H. Milne Edwards 1837) (Decapoda: Anomura: Porcellanidae)" dictated at *Universidad Marista de Mérida*, Mérida, Yucatan, México.

WORKS PRESENTED IN PROCEEDINGS

- Baeza**, J.A. 2005. Local mate competition does affect sex allocation in a protandric simultaneous hermaphrodite with low risk of sperm competition. Society for Integrative and Comparative Biology (SICB) Annual Meeting. San Diego, California, U.S.A.
- Baeza**, J.A. & R.T. Bauer. 2003. Experimental test of socially mediated sex change in a simultaneous hermaphrodite; the shrimp *Lysmata wurdemanni* (Crustacea: Caridea). 2003 Summer Meeting of The Crustacean Society. Williamsburg, Virginia, U.S.A.
- Baeza**, J.A. & M. Thiel. 2002. Predicting territorial behaviour in symbiotic crabs using host characteristics: A comparative study and proposal of a model. 83rd Annual Meeting of the Western Society of Naturalists. Monterey, California, U.S.A.
- Baeza**, J.A. & M. Fernández. 2002. Active brood care in Cancer setosus (Crustacea: Decapoda: Cancridae): the relationship between female behavior, embryo oxygen consumption, and the cost of brooding. 83rd Annual Meeting of the Western Society of Naturalists. Monterey, California, U.S.A.
- Fernández, M., J.A. **Baeza**, A. Brante & N. Ruíz-Tagle. 2002. Parental care in Brachyurans: oxygen provision and associated costs. Proceedings of the XXII Congress in Marine Science, Universidad Austral de Chile, Valdivia, Chile (In Spanish).
- Baeza**, J.A. & M. Fernández. 2000. Active brood care in Cancer setosus (Crustacea: Decapoda: Cancridae): the relationship between female behaviour, embryo oxygen consumption, and the cost of brooding. Proceedings of the IV Congress in Marine Science, CENPAT, National Patagonian Center, Pto. Madryn, Argentina (In Spanish).
- Thiel, M. & J.A. **Baeza**. 2000. Factors affecting the social behaviour of symbiotic Crustacea: a modeling approach. Proceedings of III International Congress in Symbiosis, Marburg, Germany.

- Fernández, M., M. Pardo, N. Ruiz-Tagle & J.A. **Baeza**. 2000. Parental care in brachyurans: the relationship between embryo oxygen demand, female oxygen provision, and the costs of oxygen provision. Proceedings of the IX Annual Congress of the Ecological Society of Chile, Universidad Católica de la Santísima Concepción, Concepción, Chile (In Spanish).
- Correa, C., J.A. **Baeza**, I.A. Hinojosa & M. Thiel. 2000. Mating hierarchy and mating tactics in rock shrimps. Abstracts of the Crustacean Society 2000 Summer Meeting. Universidad Nacional Autónoma de México. Puerto Vallarta, México (In Spanish).
- Correa, C., J.A. **Baeza**, I.A. Hinojosa & M. Thiel. 2000. Alternative mating tactics in the rock shrimp Rhynchocinetes typus (Decapoda: Caridea). Proceedings of the XX Congress in Marine Science, Universidad Católica de la Santísima Concepción. Concepción, Chile (In Spanish).
- Correa, C., I. Hinojosa & J.A. **Baeza**. 1999. The private life of crustaceans I: Two ways to conquer a female?. Proceedings of the XIX Congress in Marine Science, Universidad de Antofagasta. Antofagasta, Chile (In Spanish).
- Baeza**, J.A. 1999. The private life of crustaceans II: Taking care of the home, territoriality in Allopetrolisthes spinifrons. Proceedings of the XIX Congress in Marine Science, Universidad de Antofagasta. Antofagasta, Chile (In Spanish).
- Baeza**, J.A., A. Aguayo & W. Stotz. 1996. First record on the stranding of Lissodelphis peronii (Lacépède, 1804) at Lagunillas, IV Región, Chile. Proceedings of the I Congress of the Latin-American Society of Specialists in Aquatic Mammals. Viña del Mar, Chile (In Spanish).
- Baeza**, J.A. 1996. The embryonic development and larval morphology of Pseudoceros incae incerta sedis (Platyhelminthes: Polycladida) examined by optic and MEB microscopy. Proceedings of the VII Annual Meeting of the Chilean Society of Reproduction and Development, Universidad Católica del Norte, Coquimbo, Chile (In Spanish).
- Baeza**, J. A. & W. Stotz. 1996. The "loco" Concholepas concholepas (Muricidae), a new host record for the commensal crab Allopetrolisthes spinifrons

- (Porcellanidae). Proceedings of the XVI Congress in Marine Science, Universidad de Concepción. Concepción, Chile (In Spanish).
- Baeza**, J.A. & W. Stotz. 1995. Two new hosts and notes on the association of the porcellanid crab Allopetrolisthes spinifrons (M. Edwards) with intertidal and subtidal macroinvertebrates. Proceedings of the XV Congress in Marine Science, Universidad Católica del Norte, Coquimbo, Chile (In Spanish).
- Baeza**, J.A., D. Véliz, L.M. Pardo, K. Lohrmann & Ch. Guisado. 1995. Taxonomic characterization of Pseudoceros sp. (Platyhelminthes: Turbellaria: Polycladida) of La Herradura Bay, Coquimbo, Chile. Proceedings of the XV Congress in Marine Science, Universidad Católica del Norte, Coquimbo, Chile (In Spanish).
- Baeza**, J.A. & Ch. Guisado. 1994. The embryonic development and larval morphology of Pseudoceros sp. (Platyhelminthes: Polycladida). Proceedings of the V National Congress of Students of Biological Sciences, Universidad de La Serena, La Serena, Chile (In Spanish).
- Tavonatti, S., J.A. **Baeza** & Ch. Guisado. 1993. The effect of salinity in the intracapsular development of an undescribed Pseudoceridae flatworm (Platyhelminthes: Polycladida). Proceedings of the XIII Congress in Marine Science, Universidad Católica de Valparaíso, Viña del Mar, Chile (In Spanish).
- Baeza**, J.A., S. Tavonatti & Ch. Guisado. 1993. Intracapsular development and other reproductive aspects of an undescribed Pseudoceridae flatworm (Platyhelminthes: Polycladida). Proceedings of the XIII Congress in Marine Science, Universidad Católica de Valparaíso, Viña del Mar, Chile (In Spanish).

RESEARCH EXPERIENCE

- 1993-95 Curator. Collection of Invertebrates, Universidad Católica del Norte, Chile.
- 1995 Technical assistant. Desmospongiae collection along the Chilean coast. Co-ordinated by Dr. Ruth Desqueyroux Faundez, Muséum d'histoire naturelle, (MHNG), Geneva, Suiza.

- 1996–97 Research assistant. Project FONDECYT 1941146/1994 "Productivity determination of preys used by the "loco" resource as an estimator of carrying capacity". Co-ordinator: Dr. Wolfgang Stotz U.
- 1996 Research assistant. Project Fondo de Investigación Pesquera (FIP) - Inter-American Centre for Sustainable Ecosystems Development (ICSED) - Universidad Católica del Norte (UCN) 1996-52 "Diagnosis of the basal state for the establishment of a National Marine Reserve System (NMRS)". Co-ordinator: Dr. Exequiel González.
- 1996 Research assistant. Project Fondo de Investigación Pesquera (FIP) - Universidad Católica del Norte (UCN) 1996. "Bio-economical characterization of the "macha" resource fishery in the north and south-central zone of Chile". Co-ordinator: MSc. Eduardo Pérez.
- 1998 Researcher. Project Fondo Mexicano para la Conservación de la Naturaleza (FMCN) B1-1-97/008 de 1998. "Population studies in four flyfishing target species at the Reserve of the Biosphere "Sian Ka'an". Co-ordinator: MSc. Martha Basurto.
- 1999–2001 Research associate. Project FONDAP - FONDECYT 1999 "Reproductive costs in four species of brachyuran crabs along the latitudinal gradient of the coast of Chile". Co-ordinator: Dr. Miriam Fernández.
- 1999–2001 Research associate. Project Volkswagen Foundation 1999 "The crabs of the end of the world: reproductive costs in four species of brachyuran crabs along the latitudinal gradient of the coast of Chile". Co-ordinator: Dr. Miriam Fernández.
- 2002–03 Research assistant. Project NSF 9982466 "Analysis of reproductive benefits/costs and social organisation to explain sex change and simultaneous hermaphroditism in decapod shrimps". Co-ordinator: Dr. Raymond T. Bauer.

TEACHING EXPERIENCE

- 1993 Teaching assistant, course “Embryology”, Universidad Católica del Norte, Chile.
- 1994 Teaching assistant, course “Invertebrate Zoology II”, Universidad Católica del Norte, Chile.
- 1999 Teaching assistant, graduate course “Behaviour of Marine Invertebrates”, Universidad Católica del Norte, Chile. Dictated by Dr. Martin Thiel.
- 2001-02 Teaching assistant, courses “Biology 103 & 104”, University of Louisiana at Lafayette, Louisiana, USA.
- 2003 Teaching assistant, course “Advance Topics on Microscopy”, University of Louisiana at Lafayette, Louisiana, USA.
- 2004 Teaching assistant, course “Animal Physiology”, University of Louisiana at Lafayette, Louisiana, USA.
- 2005 Teaching assistant, course “Ecology and Evolution of Arthropods”, University of Louisiana at Lafayette, Louisiana, USA.

TRAINING COURSES & SYMPOSIA PARTICIPATION

- 1994 “Histology techniques”. Funded by Universidad Católica del Norte, Coquimbo, Chile.
- 1996 “Reproduction in decapod crustaceans”. Funded by Universidad Católica del Norte and The University of Liverpool. Coquimbo, Chile.
- 1997 “Trophic modulation by ECOPATH II model”. Funded by Universidad Católica del Norte, Coquimbo, Chile.
- 2000 “Life history of Marine Invertebrates”. Funded by Project FONDAP – Oceanography and Marine Biology, Estación Costera de Investigaciones

Marinas, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile, Las Cruces, Chile.

- 2000 "Connexions and dynamics in marine coastal systems: Bays and open coasts". Funded by Project FONDAP – Oceanography and Marine Biology, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile, Santiago, Chile.

AWARDS, SCHOLARSHIPS & GRANTS

- 2005 Award "**Doctoral Dissertation Improvement Grant (DDIG)**" of the NSF in support of research project entitled "Experimental test of sex allocation theory using the protandric simultaneous hermaphrodite *Lysmata wurdemanni* (Crustacea: Decapoda: Caridea) as a model system".
- 2005 Award "**Lerner-Gray Fund for Marine Research**" of the American Museum of Natural History in support of research project entitled "Predicting and testing overall and size dependent sex allocation in the simultaneous hermaphrodite shrimp *Lysmata wurdemanni* (Gibbes) (Caridea: Hippolytidae)".
- 2005 Award "**The Crustacean Society Graduate Student Fellowship**" of The Crustacean Society in support of research project entitled "Predicting and testing overall and size dependent sex allocation in the simultaneous hermaphrodite shrimp *Lysmata wurdemanni* (Gibbes) (Caridea: Hippolytidae)".
- 2004 Award "**Lerner-Gray Fund for Marine Research**" of the American Museum of Natural History in support of research project entitled "Delayed maturation of the female function in the simultaneous hermaphrodite marine shrimp *Lysmata wurdemanni*: a consequence of sex-dependent energetic costs, sex-dependent mortality rates, or sex-dependent time commitments?".

- 2003 Award “**Sigma Xi Grants In Aid of Research (GiAR)**” in support of research project entitled “Experimental test of the effect of local mate competition on sex allocation in the marine shrimp *Lysmata wurdemanni*: a protandric simultaneous hermaphrodite with low risk of sperm competition”.
- 2003 Award “Best Student Paper (oral)” presented in the 2003 Summer Meeting of the Crustacean Society, Williamsburg, Virginia, USA.
- 2001– Fellowship “Beca Presidente de la Republica”, MIDEPLAN, Chile.
- 2001– Teaching Assistantship, University of Louisiana at Lafayette, USA.
- 1999 Award “Best Alumnus of Universidad Católica del Norte”.
- 1999 Award “Best Alumnus of Marine Biology”.
- 1996 Scholarship from “Escondida Mine for Master’s students in Marine Sciences” funded by Mine “Escondida” and the Chilean Society of Marine Sciences.

PROFFESIONAL SERVICES AND AFFILIATIONS

- 2004 – 05 Organizing Committee Member of the “Graduate Student Symposium” at the Department of Biology, The University of Louisiana at Lafayette.
- 2003 – Member of The Crustacean Society, USA
- 1995 – Member of The Chilean Carcinological Society, Chile.
- Reviewed journal articles for: Journal of the Marine Biological Association of the United Kingdom, Marine Ecology Progress Series, Behavioural Ecology

OTHERS

- 1995 – Certificate Specialist Diver, Army of Chile.
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