

Curriculum vitae – Dr Éva Plagányi-Lloyd

BIOGRAPHICAL DETAILS

Citizenship: South African
Date & Place of birth: 19 September 1968, Durban, South Africa
Personal: Married to Dr Penn Lloyd (an ornithologist); mother of two gorgeous daughters: Sabrina (10) and Izabella (7)
Contact details: CSIRO Marine and Atmospheric Research
233 Middle St, Cleveland, QLD 4163 Australia
Tel. (61) 38267290
E-mail: Eva.Plaganyi-lloyd@csiro.au

ACADEMIC QUALIFICATIONS

Level	Field of study	Institution	Year obtained	Distinction
Doctoral	Applied fisheries management	University of Cape Town (UCT)	2004	n/a
Masters	Marine ecology	UCT	1995	Yes
BSc (Hons)	Zoology	UCT	1991	Yes
BSc	Applied Mathematics, Botany & Zoology majors	University of Natal	1990	Yes

EMPLOYMENT HISTORY

Feb 2009-current Research Scientist, CSIRO
2006-Jan 2009 Senior Lecturer, Department of Mathematics & Applied Mathematics, UCT
1996 – 2005 *Research Officer*, Department of Mathematics & Applied Mathematics, UCT
1993-1995 *Research Officer*, Jointly employed by the Departments of Zoology & Applied Mathematics, UCT

TEACHING

- Over 900 undergraduate lectures in Applied Mathematics
- 15 years experience as a course convenor
- Postgraduate supervision (currently 4 PhD and 1 MSc student)
- Principal Investigator (2007-2008) for Postdoctoral fellow Dr Charlie Edwards
- Thesis examiner for several theses
- Board Member of MA-RE (Marine Research Institute at the University of Cape Town)
- Member of Science Faculty Employment Equity Committee (2004-2008)

Teaching activities and achievements in Science outside of the University:

I am committed to advancing science outside of the confines of academia. Some of my endeavours in this regard are summarised below:

- South African Women in Science and Engineering (SAWISE) Committee member and Chairperson of Scholarship Committee until Jan 2009
- I regularly give public lectures to natural history societies, schools, etc. (3-5 per year).
- I have written a number of popular articles for magazines and newspapers (Appendix A) and have given a few radio interviews.

RESEARCH***Summary of some research projects:***

- Investigating ecosystem and multi-species modelling approaches
- Assessment of Torres Strait tropical rock lobster fishery
- Honorary Research Associate – University of Cape Town
- Developing Operating Models and Management Procedures to investigate the impact of fishing on other dependent species in the ecosystem, e.g. development of Spatial Multi-species Operating Model (SMOM) and associated Management Procedure (MP) of krill-predator-fishery dynamics in response to requests for scientific advice regarding the subdivision of the precautionary catch limit for krill among 15 small-scale management units (SSMUs) in the Scotia Sea to reduce the potential impact of fishing on land-based predators
- Quantitative assessments of the South African abalone and hake resources
- Involvement in stock assessments of other countries e.g. Gulf of Maine cod, Namibian Hake, West Greenland Beluga Whales, Southern Bluefin Tuna
- Simulating the effects of hake trawling to contribute to the planning of offshore protected areas
- Development of models of Rangeland systems
- Developing biological models in collaboration with other scientists
- Researcher on board the *S.A. Agulhas* voyage 77 to Antarctica (Dec 1994 -Feb 1995)

SCIENTIFIC PUBLICATIONS

Eighteen journal articles (2 more in review), and 4 peer-reviewed book chapters, plus one major review of ecosystem models published in book form by the FAO [Food and Agriculture Organisation of the United Nations, Rome] (in 2007). Majority of research documented in 180 technical/consultancy scientific working group documents (please see *Appendix A*).

Refereed numerous articles as well as several Research Grant Applications.

Semi-popular Publications: I believe it is critically important that scientists communicate and share their knowledge and enthusiasm for a subject with the layperson. Over 45 semi-popular publications (please see *Appendix A*).

SELECTED AWARDS

- National Research Foundation (NRF) President's Award (2006-2010)¹;
- UCT Merit Award (2001);
- *S.A. Association for the Advancement of Science S2A3 Bronze Medal* for the South African Masters' thesis judged to be the most outstanding in the Faculties of Science, Engineering and Medicine (1996); *Junior Captain Scott medal* for the best MSc thesis from a South African University in the fields of Zoology and Botany (1996)

SYMPOSIA & WORKSHOPS

Several oral papers presented at international and local symposia. During the last 4 years, I attended 14 international and 11 local meetings, and have recently delivered a few keynote talks at international meetings, and been invited (with all expenses paid) to several International Workshops.

SERVICES TO INDUSTRY, GOVERNMENT AND NGO'S

- Important role in quantitative assessments of the South African abalone and hake fisheries, and hence in the management of these important resources
- Assisting in implementing an Ecosystem Approach to Fisheries in South Africa, for example by supervising the development of a penguin population dynamics model to be coupled to the OMP (Operational Management Procedure) for the pelagic fishery.
- Collaborated in research for:
 - Ministry of Fisheries and Marine Resources, Namibia
 - *NAMMCO* (North Atlantic Marine Mammal Commission)
 - *CCSBT* (Commission for the Conservation of Southern Bluefin Tuna)
 - U.S. New England Fisheries Council
 - U.S. Marine Mammal Commission
- Member of the Abalone Working Group of Marine and Coastal Management (old Sea Fisheries Research Institute) (1996 – 2008)
- Member of the Ecosystem Approaches for Fisheries Management Working Group of Marine and Coastal Management (2003 – 2007)

¹ the so-called P-rating is awarded (together with substantial research funding) for a five year period to “young researchers (normally younger than 35 years of age), who have held the doctorate or equivalent qualification for less than five years at the time of application and who, on the basis of exceptional potential demonstrated in their published doctoral work and/or their research outputs in their early post-doctoral careers are considered likely to become future leaders in their field.”

APPENDIX A - Publications - Éva Plágányi

Publications in refereed journals

1. Rademeyer, R.A., Butterworth, D.S. and É.E. Plágányi. 2008. Assessment of the South African hake resource taking its two-species nature into account. *African Journal of Marine Science* 30(2): 263-290.
2. Rademeyer, R.A., Butterworth, D.S. and É.E. Plágányi. 2008. A history of recent bases for management and development of a species-combined Operational Management Procedure for the South African hake resource. *African Journal of Marine Science* 30(2): 291-310.
3. Edwards, C.T.T., Rademeyer, R.A., Butterworth, D.S. and É.E. Plágányi. 2008. Investigating the consequences of Marine Protected Areas for the South African Deepwater Hake (*Merluccius paradoxus*) resource. *ICES Journal of Marine Science* 66
4. Edwards, C.T.T. and É.E. Plágányi. 2008. Participatory assessment of the South African Abalone resource and its impact on predicted population trajectories. *South African Journal of Science* 104: 185-191.
5. Plágányi, É.E., Rademeyer, R.A., Butterworth, D.S., Johnston, S.J. and C.L. Cunningham. 2007. Making management procedures operational – innovations implemented in South Africa. *ICES Journal of Marine Science* 64: 626-632.
6. Rademeyer, R.A., Plágányi, É.E. and D.S. Butterworth. 2007. Tips and tricks in designing management procedures. *ICES Journal of Marine Science* 64: 618-625.
7. Chinsamy-Turan, A. and É.E. Plágányi. 2007. Accepting Evolution. *Evolution* 62: 248-254. (DOI: 10.1111/j.1558-5646.2007.00276.x.)
8. Plágányi, É.E. & D.S. Butterworth 2004. A critical look at the potential of Ecopath with Ecosim to assist in practical fisheries management. *In Ecosystem Approaches to Fisheries in the Southern Benguela*. Shannon, L.J., Cochrane, K.L. and S.C. Pillar (Eds). *African Journal of Marine Science* 26: 261-287.
9. Butterworth, D.S. & É.E. Plágányi 2004. A brief introduction to some multi-species/ecosystem modeling approaches in the context of their possible application in the management of South African fisheries. *In Ecosystem Approaches to Fisheries in the Southern Benguela*. Shannon, L.J., Cochrane, K.L. and S.C. Pillar (Eds). *African Journal of Marine Science* 26: 53-61.
10. Lloyd, P. & É.E. Plágányi. 2002. Correcting observer effect bias in estimates of nesting success of a coastal bird, the White-fronted Plover *Charadrius marginatus*. *Bird Study* 49: 124-130.
11. Plágányi, É.E., Butterworth, D.S. & A. Brandão. 2001. Towards assessing the South African abalone *Haliotis midae* stock using an age-structured production model. *Journal of Shellfish Research* 20: 813-827.
12. Plágányi, É.E., Hutchings, L. & J.G. Field. 2000. Anchovy foraging: simulating spatial and temporal match/mismatches with zooplankton. *Canadian Journal of Fisheries and Aquatic Science* 57(10): 2044-2053.
13. Plágányi, É.E. & G.M. Branch. 2000. Does the limpet *Patella cochlear* fertilise its own algal garden? *Marine Ecology Progress Series* 194(17): 113-122.

14. Lloyd, P., Plagányi, É.E., Lepage, D., Little, R.M. & T.M. Crowe. 2000. Nest site selection, egg pigmentation and clutch predation in the ground-nesting Namaqua Sandgrouse. *Ibis* 142: 123-131.
15. Plagányi, É.E., Hutchings, L., Field, J.G. & H.M. Verheye. 1999. A model of copepod population dynamics in the southern Benguela upwelling region. *Journal of Plankton Research* 21(9): 1-34.
16. Spinks, A. & É.E. Plagányi. 1999. Reduced starvation risks and habitat constraints promote cooperation in the common mole-rat, *Cryptomys hottentotus hottentotus*: a computer-simulated foraging model. *Oikos* 85: 435-444.
17. Hockey, P.A.R., Turpie, J.K., Plagányi, É.E. & T.E. Phillips. 1999. Scaling patterns in the foraging behaviour of sympatric plovers: effects of body size and diet. *Journal of Avian Biology* 30: 40-46.
18. Hockey, P.A.R., Plagányi, É.E., Turpie J.K. & T.E Phillips. 1996. Foraging behaviour of Crab Plovers *Dromas ardeola* at Mida Creek, Kenya. *Ostrich* 67: 33-44.

Peer-reviewed Book

19. Plagányi, É.E. 2007. Models for an Ecosystem Approach to Fisheries. FAO Fisheries Technical Paper No. 477. Rome, FAO. 2007. 108p. ISBN 978-92-5-105734-6.

Chapters in Books

20. Plagányi, É.E. & D.S. Butterworth 2008. Competition with fisheries. Pages 269-275. In Encyclopedia of Marine Mammals, 2nd edition Perrin, W.F., Würsig, B & H.G.M. Thewissen (eds), Academic Press, ISBN-10: 012373553X; ISBN-13: 978-0123735539.
21. Plagányi, É.E. & D.S. Butterworth 2005. Indirect Fishery Interactions. In: Marine Mammal Research: Conservation beyond crisis. J. E. Reynolds, W. F. Perrin, R. R. Reeves, S. Montgomery and T. J. Ragen (eds): 19-46. Baltimore, Maryland: John Hopkins University Press. ISBN 0-8018-8255-9. (240 pp.)
22. Plagányi, É.E. & D.S. Butterworth 2002. Competition with fisheries. In Encyclopedia of Marine Mammals, Perrin, W.F., Würsig, B & H.G.M. Thewissen (eds), Academic Press, 268-273. ISBN 0125513402 .
23. Butterworth, D.S., Plagányi É.E. & H.F. Geromont. 2002. Resource assessment and projections for the belugas off West Greenland using the population model of HITTER-FITTER. In Belugas in the North Atlantic and the Russian Arctic, Heide-Jørgensen, M.P. and Ø. Wiig (Eds) *NAMMCO Sci. Publ.* Vol. 4: 211-224. ISBN 8291578117

Peer-reviewed conference proceedings

24. Plagányi, É.E. & D.S. Butterworth 2008. Competition between marine mammals and fisheries – can we successfully model this using ECOPATH with ECOSIM? (peer-reviewed) Pages 1073-1087 in J.L. Nielsen, J.J. Dodson, K. Friedland, T.R. Hamon, J. Musick, and E. Verspoor (eds). Reconciling fisheries with conservation: proceedings of the Fourth World Fisheries Congress. American Fisheries Society, Symposium 49, Bethesda, Maryland.
25. Plagányi, É.E. & D.S. Butterworth. 2008. Does classic stock assessment have a role in a failed case of reconciliation of fisheries with conservation? Pages 1371-1387 in J.L. Nielsen, J.J. Dodson, K. Friedland, T.R. Hamon, J. Musick, and E. Verspoor (eds).

Reconciling fisheries with conservation: proceedings of the Fourth World Fisheries Congress. American Fisheries Society, Symposium 49, Bethesda, Maryland.

Non-peer-reviewed conference proceedings

26. Plagányi, É.E., Brandao, A., Butterworth, D.S., de Moor, C.L., Glazer, J., Johnston, S.J. and R.A. Rademeyer. 2009. Stock assessment in South Africa – building on a consistent yet flexible approach. Proceedings of the Fifth World Fisheries Congress. 2pp.

Technical reports – a selected few examples from a total of 184 technical reports

I. Consultancy work regarding renewable resources of other countries

1. Plagányi, É.E. and D.S. Butterworth. 2007. A spatial multi-species operating model of the Antarctic Peninsula krill fishery and its impacts on land-breeding predators. Workshop document presented to WG-SAM subgroup of CCAMLR (Commission for the Conservation of Antarctic Marine Living Resources), WG-SAM-07/12. 34 pp.

II General

2. Plagányi, E.E. and D.S. Butterworth. 2007. Spatial Age-structured Model of African Penguin Populations at Robben, Dassen and Dyer Islands, and at Boulders. MCM/2007/MAY/SWG-PEL/6b. 30 pp.
3. Plagányi, E.E. and D.S. Butterworth. 2007. Summary of available data for modelling African Penguin *Spheniscus demersus* Populations. MCM/2007/MAY/SWG-PEL/6a. 20 pp.

III. South African Abalone

4. Plagányi, É.E. 2007. A summary of the assessment and management approach applied to South African abalone in Zones A-D. Marine and Coastal Management document WG/AB/07/Jun/01: 20 pp
5. Plagányi, É.E. 2007. Projection results for Zones A, B, C and D in 2007. Marine and Coastal Management document: WG/AB/07/Aug/27: 11 pp.
6. Plagányi, É.E. 2007. Further revisions to abalone data on poaching for Zones A-D in 2007. Marine and Coastal Management document: WG/AB/07/Aug/26: 5 pp.
7. Plagányi, É.E. 2007. Projection results assuming closure of the abalone commercial fishery in Zones A, B, C and D. Marine and Coastal Management document: WG/AB/07/Aug/28: 2 pp.
8. Plagányi, É.E. 2007. Abalone poaching confiscation trends for Zones A-D up until 2007. Marine and Coastal Management document: WG/AB/07/Aug/11: 4 pp.
9. Edwards, C., Plagányi, É. and Butterworth, D.S. 2007. Preliminary GLM standardisation of the commercial CPUE series for abalone in Zones E and G from 1980 to 2007. Marine and Coastal Management document: WG/AB/07/AUG/15: 1–19.

IV. South African hake

10. Rademeyer, R.A., Plagányi, É.E., and D.S. Butterworth. 2005. Results for an Illustrative Empirical Decision Rule for Hake Projections for C3 Scenarios in the Context of Alternative Options for Initial TAC Reduction Levels. Marine and Coastal Management document WG/11/05/D:H:49. 13 pp.
11. Plagányi, É.E., R.A. Rademeyer and D.S. Butterworth. 2005. Summary of Progress in developing a species-disaggregated and Fox model-based OMP for the South African Hake Resource. Marine and Coastal Management document WG/11/05/D:H:46. 5 pp.
12. Plagányi, E.E., Butterworth, D.S. and R. Rademeyer. 2006. Multi-species Considerations in Planning Methodologies for Possible Joint South African – Namibian Hake Assessments. Workshop document – Joint hake meeting, May 2006. 8 pp.

Popular publications

Books

1. Plagányi-Lloyd, É. & Levine, M. 2000. Sharks, Whales and Dolphins. Struik Publishers. 63 pp. Also translated into Afrikaans
2. Plagányi, É.E. 1994. Questions & Answers: Whales and Dolphins. Artist: David Thorpe. New Holland, Cape Town, Sydney. Also translated into Afrikaans.

Semi-popular Publications

3. Plagányi, É.E. and J. Case. 2008. Are boys better at mathematics than girls? *Quest*
4. Plagányi, É.E. 2007. Antarctic ecosystems under threat. *Cape Times*, December 31, pg. 9.
5. Plagányi, É.E. 2006. Lobsters loom large in the line-up. *SANCOR* newsletter. In press.
6. Plagányi, É.E. 2005. Social systems of whales parallel that of elephants and chimpanzees. *Whale Echoes* newsletter, April 2005: 1-2.
7. Plagányi, É.E. 2004. Splitting stocks and merging scientists. *SANCOR* newsletter 176: 11-12.
8. Plagányi, É.E. & Butterworth, D.S. 2001. When every fish counts ... *Africa Environment & Wildlife* 9(4): 20-21.
9. Plagányi, É.E. 2000. A whale in our wake – a review of boat-based whale-watching ... *Africa Environment & Wildlife* 8(9): 30-33.
10. Plagányi, É.E. 2000. Information on marine mammals. Prepared for Centre for Marine Studies. 6 pp.
11. Plagányi, É.E. 2000. South African whales and dolphins. Prepared for Centre for Marine Studies. 7 pp.
12. Plagányi, É.E. 1999. Making waves. *Africa Environment & Wildlife* 7(6): 54-59.
13. Plagányi, É.E. 1999. Social sense and sensibility. What do marine and terrestrial mammals have in common? *Africa Environment & Wildlife* 7(4):18-19
14. Plagányi, É.E. 1999. Spout Ahead: on the trail of the whales. *Discover Africa* 7: 54-57
15. Plagányi, É.E. 1999. Saving ocean sunfishes. *Africa Environment & Wildlife* 7(1): 9
16. Plagányi, É.E. 1999. Monkey Maths. *Mathematical Digest* 115: 4-5.
17. Plagányi, É.E. 1999. Book review: Four Fifths: The Ocean Planet. *Africa Environment & Wildlife* 8: 21
18. Plagányi, É.E. 1998. Wave dancing. *Africa Environment & Wildlife* 6(2): 53-61.
19. Plagányi, É.E. 1998. Meals on whales. *Africa Birds & Birding* 5(3): 11
20. Plagányi, É.E. 1998. Man versus migration. *Africa Environment & Wildlife* 6(3): 26.
21. Plagányi, É.E. 1998. Chasing a fair deal. *Africa Birds & Birding* 3(2): 19.
22. Plagányi, É.E. 1997. Wake for a whale. An interview with Lyall Watson. *Africa Environment & Wildlife* 5(3): 17.
23. Plagányi, É.E. 1997. Video Review: The Trials of Life by David Attenborough. *Africa Environment & Wildlife* 5(1): 9.
24. Plagányi, É.E. 1997. Ticked Off. *Africa Birds & Birding* 2(6): 12.
25. Plagányi, É.E. 1997. Menu selection. *Africa Birds & Birding* 2(6): 10.
26. Plagányi, É.E. 1997. Long-distance solicitation sounds. *Africa Environment & Wildlife* 5(1): 10
27. Plagányi, É.E. 1997. Lobster walk-out at Elands Bay. *Africa Environment & Wildlife* 5(3): 18.
28. Plagányi, É.E. 1997. Lions cheat on pridemates. *Africa Environment & Wildlife* 5(2): 23
29. Plagányi, É.E. 1997. Getting to the Point: The Cape of Good Hope Nature Reserve. *Africa Environment & Wildlife* 5(4): 86-88.
30. Plagányi, É.E. 1997. Feasting and Fasting: feeding strategies in whales and dolphins. *Africa Environment & Wildlife* 5(5): 37-42.
31. Plagányi, É.E. 1997. Experience counts: mate selection in Greater Flamingos. *Africa Birds & Birding* 2(3): 11.
32. Plagányi, É.E. 1997. Breathing Life into Dead Whales. *Africa Environment & Wildlife* 5(2): 16.
33. Plagányi, É.E. 1997. Big-Brained Braggarts. *Africa Birds & Birding* 2(2): 19.
34. Plagányi, É.E. 1997. A commemorative guide with checklists to the whales and dolphins and other marine life of the Western Indian Ocean. (36pp) (pvt. publ.)
35. Plagányi, É.E. 1996. Water Why's. *Undercurrents* 1(2): 7.
36. Plagányi, É.E. 1996. Underwater Forests. *Undercurrents* 1(3): 4-5.
37. Plagányi, É.E. 1996. Focus on gannets. *Africa, Birds and Birding* 1(5): 43-52.
38. Plagányi, É.E. 1996. A Water Cradle of Life. *Undercurrents* 1(2): 4-5.
39. Plagányi, É.E. 1996. The Age of Aquariums. *Sunday Life Magazine* (35): 14-17.
40. Plagányi, É.E. 1996. Windows on Two Oceans. *Toktokkie* 17(1): 8-9.

41. Plagányi, É.E. 1995. Windows on the Sea: Cape Town's Two Oceans Aquarium. *Africa Environment & Wildlife*. Nov/Dec 1995, pp.65-87. Also distributed as an independent publication.
42. Plagányi, É.E. 1995 Welcome to our Water world. Weekend Argus December 6 pp.
43. Plagányi, É.E. 1995 Special supplement on the Two Oceans Aquarium. Weekend Argus newspaper. November 11/12: 8 pp.
44. Plagányi, É.E. 1995 A world-class aquarium. Weekend Argus newspaper. November 11/12, p. 21.
45. Plagányi, É.E. 1994. Who's who in the big blue? Whale-watching tips, titbits and tales. *Africa Environment & Wildlife*. Nov/Dec 1994, pp.60-67.
46. Plagányi, É.E. 1994. A Guide to the Whales and Dolphins (and other marine life) of the Western Indian Ocean. Artist: Kim Wright. (36pp) (pvt. publ.)
47. Plagányi, É.E. 1994. Whale Sanctuaries: Sanctimonious Sentimentality or Environmental Democracy? *Africa Environment & Wildlife*. Nov/Dec 1994, pp.69.

Scientific editing of books

Coleman, N. 1995. Discover Underwater Australia. National Book Distributors, Australia.

Coleman, N. 1995. Beautiful Great Barrier Reef. National Book Distributors, Australia.

Several articles and chapters in two books.
