

Curriculum vitae

Justin Bell

D.O.B. 11/07/1980

1 Akora Street
Mornington 7018
Ph: 0400 642 966
Email: bbeellyy@gmail.com

Academic history

- Doctorate of Philosophy with Deakin University, obtained in September 2012. Thesis title: Reproduction and ageing of Australian holocephalans and white-fin swell shark.
 - First class Bachelor of Science (Honours) with Deakin University/Victorian Department of Primary Industries, May 2004. Thesis title: Fisheries and reproductive biology of the elephant fish, *Callorhinchus milii*, in south-east Australia.
 - Graduated from a Bachelor of Science (Fisheries Management and Aquaculture) with Deakin University in May 2004.
-

Employment History

Position: Painter and Decorator
Company: Lara Painting and Decorating/Self Employed
Period: October 1995 – January 2004
Experience:

- Quotation
- Quality assurance
- Industrial/commercial/private experience
- Managerial responsibilities
- Sound customer relationship skills

Contact: Neil Whitworth, 0408 525 779

Position: Scientific Officer
Company: Victorian Department of Primary Industries, Fisheries Research Branch
Period: January 2004 – July 2013

Areas of employment, projects and experience

Shark

- Ecological risk assessment of chondrichthyans for the effects of fishing.
- Population status of school and gummy shark for the southern shark fishery.
- Survey of Great Australian Bight slope waters for endangered gulper shark species.
- Attended Shark Fishery Assessment Group meetings.

Central Ageing Facility

- Preparing otoliths, statoliths, lipofuscin, vertebrae and dorsal spines of >50 chondrichthyan, teleost and invertebrate species for ageing.
- Experience ageing >20 species of chondrichthyan and teleosts.
- Data management and analysis.

Bay and Inlets

- Presentations at angling clubs.
- Fishery independent surveys.
- Post-capture mortality of recreationally caught snapper and bream.
- Post-capture mortality of undersize gill-net caught bream.
- Validation for angler diary programs.
- Management and manipulation of recreational creel survey data.
- Estimating the recreational catch of southern bluefin tuna in Victorian waters.
- Capture stress investigation of southern bluefin tuna.

Invertebrate

- Abalone abundance, size frequency and habitat dive surveys.
- DNA testing to screen for abalone viral ganglioneuritis and for population genotyping.
- Collection, management and analysis of ageing and reproduction data for optimising yield.
- Morphometric and growth studies.
- Management and analysis of commercial and fishery independent data.
- Project administration.
- Participation in fine-scale abalone quota allocation co-management workshops.
- Methods to estimate the recreational catch of southern rock lobster.
- Methods to estimate the distribution and abundance of scallops in the Victorian offshore fishing zone and development of a preliminary harvest strategy.
- Removing sea urchins to recover abalone habitat.

Miscellaneous

- Port Phillip Bay trawl survey and anchovy trawl survey.
- Onboard observation for the Integrated Scientific Monitoring Program.
- Experience onboard commercial abalone, rock lobster, haul seine, gill net, longline, trawl and automatic longline vessels throughout southern Australia.

- Experience using experimental mesh, seine and trawl nets for collection of fish, shark and plankton samples.
- Scientific SCUBA diving experience (underwater sampling, visual census, data recording and experimental equipment installation).
- Electro-fishing surveys of Victorian inland waters.
- Deployment of water quality logging instruments.

Contact: Dr Harry Gorfine, 0438 506 389

Position:	Junior Research fellow
Company:	Institute for Marine and Antarctic Studies
Period:	July 2012 – present

Areas of employment, projects and experience

Finfish section

FRDC project 2010/016 assessing the impacts of gillnetting in Tasmania: impacts on bycatch and biodiversity. Responsibilities include:

- Field sampling
- Measuring post release survival
- Data management
- Reporting
- Multivariate and univariate analyses of onboard observation data, underwater visual census (i.e. reef life) data, commercial logbook data, angler diary survey data and fish condition and survival data.

FRDC 2013/008 assessing the biology and ecology of the endangered Maugean Skate. To be submitted in December 2015. Responsibilities include:

- Field sampling
- Deployment of acoustic telemetry array and water quality monitoring equipment
- Data management
- Analyses
- Reporting

General

- Status of Australian fish stocks reports (2014)
- Global fishing capacity and fishing effort (FAO contract)
- Ecological risk assessment for the effects of fishing (Tasmanian scalefish fishery)
- Stock assessment of the Tasmanian scalefish fishery (2013-14)

Contact: Dr Jeremy Lyle, 0407 277 426

Computer and programming experience

Extensive experience using the following software for data management, manipulation, and both univariate, and multivariate, parametric and non-parametric statistical analysis:

- Microsoft Excel, Word, Access and Powerpoint.
 - R
 - SAS
 - SPSS
 - Primer
 - Adobe Photoshop
 - Adobe Illustrator
-

Post graduate supervision

Completed

Matthew Lamont (honours)– Estimating post release survival using capture-mark-recapture techniques. Completed in October 2012.

Harris Watson (masters) - The life history of *Conger verreauxi* in Tasmanian waters

Current

David Moreno (PhD, UTas) – Biology and ecology of the Whitspotted Dogfish (*Squalus acanthias*) in Macquarie Harbour.

Zoe Squires (PhD, Deakin University) – Variation in the maternal contribution of heavy metals and persistent organic pollutants by chondrichthyans of differing reproductive strategies: impacts on embryonic development.

Accreditations and tickets

- PADI certified rescue diver.
 - Victorian Boating Licence.
 - Responsible Boat Handling (Department of Primary Industries).
 - Shipboard Safety Course (Marine Safety Victoria).
 - Level 2 First Aid, defibrillator operation and DAN oxygen provider certified.
 - Trailer towing course (Department of Primary Industries).
 - Governance of Financial Management (Department of Primary Industries)
 - Bronze Medallion swimming and water safety certification.
 - Level 1 Cricket Coach by the Australian Cricket Board.
-

Awards

- Sustainability award. Awarded to the abalone program of the Department of Primary Industries, Victoria.
 - 1854 Museum Victoria postgraduate award
 - Victorian Marine Science Consortium student award for ‘outstanding achievement in the field of excellence’ at the Victorian Coastal Council Awards.
 - VCE recognition award for ‘Commitment and application to studies’.
 - VCE sports award.
-

Publications

Bell, J. D., Watson, R. and Ye, Y. (2015) A global, regional and national developmental status assessment of fishing capacity and fishing effort from 1950 to 2012

Hasegawa, K., Kato, A., Watanabe, T., Takagi, W., Romero, M. F., Bell, J. D., Toop, T., Donald, J. A. and Hyodo, S. Sulfate transporters involved in sulfate excretion in the kidney are localized in the renal proximal tubule II of the elephant fish (*Callorhinchus milii*). In submission.

Yamaguchi, Y.; Takagi, W.; Kuraku, S.; Moriyama, S.; Bell, J. D.; Seale, A. P.; Lerner, D. T.; Grau, E. G. and Hyodo, S. (2015) Discovery of conventional prolactin from the holocephalan elephant fish, *Callorhinchus milii*. *General and comparative endocrinology* (Epub ahead of print), doi: 10.1016/j.ygcen.2015.08.020.

Kakumura, K., Takabe, S., Takagi, W., Hasegawa, K., Konno, N., Bell, J. D., Toop, T., Donald, J. A., Kaneko, T. and Hyodo, S. (2015) Morphological and molecular investigations of the holocephalan elephant fish nephron: the existence of a countercurrent-like configuration and two separate diluting segments in the distal tubule. *Cell and Tissue Research* (Epub ahead of print), doi: 10.1007/s00441-015-2234-4

Takagi, W., Kajimura, M., Tanaka, H., Hasegawa, K., Bell, J. D., Toop, T. Donald, J. A. and Hyodo, S. (2014) Urea-based osmoregulation in the developing embryo of oviparous cartilaginous fish (*Callorhinchus milii*): contribution of the extraembryonic yolk sac during the early developmental period. *Journal of Experimental Biology* 217, 1353–1362.

D'Souza D. G., Rana, K., Milley, K. M., Maclean, H. E., Zajac, J. D., Bell, J. D., Brenner, S., Venkatesh, B., Richardson, S.J., Danks, J. A. (2013) Expression of Wnt signalling skeletal development genes in the cartilaginous fish, elephant shark (*Callorhinchus milii*). *General and comparative endocrinology* **193**, 1–9.

Yamaguchi, Y., Kaiya, H., Konno, N., Iwata, E., Miyazato, M., Uchiyama, M., Bell, J. D., Toop, T., Donald, J. A., Brenner, S., Venkatesh, B. and Hyodo, S. (2012) The fifth neurohypophysial hormone receptor is structurally related to the V2-type receptor but functionally similar to V1-type receptors. *General and Comparative Endocrinology* **178(3)**, 519–528.

- Takagi, W., Kajimura M., Bell J. D., Toop. T., Donald, J. A. and Hyodo, S (2012) Hepatic and extrahepatic distribution of ornithine urea cycle enzymes in holocephalan elephant fish (*Callorhinchus milii*). *Comparative Biochemistry and Physiology B: Biochemistry Molecular Biology* **161**(4) 331–340.
- Grixti, D., Morison, A. and Bell, J. D. (2010) Undersized *Acanthopagrus butcheri* caught and released from commercial gill nets show high survival rates in the Gippsland Lakes, Southeastern Australia. *North American Journal of Fisheries Management* **30**, 723–731.
- Inoue, J. G., Miya, M., Lam, K., Tay, B-H., Danks, J. A., Bell, J. D., Walker. T. I. and Venkatesh, B. (2010) Evolutionary origin and phylogeny of the modern Holocephalans (Chondrichthyes: Chimaeriformes): A Mitogenomic Perspective. *Molecular Biology and Evolution* **11**, 2576–2586.
- Liu, Y., Ibrahim, A. S., Tay, B. H., Richardson, S. J., Bell, J. D., Walker, T. I., Brenner, S., Venkatesh, B. and Danks, J. A. (2010) Parathyroid hormone gene family in a cartilaginous fish, the elephant shark (*Callorhinchus milii*). *Journal of Bone and Mineral Research* **25**, 2613–2623.
- Gillis, A., Rawlinson, K. A., Bell, J.D., Baker, C. V. H. and Shubin, N. H. (2010) Holocephalan embryos provide evidence for gill arch appendage reduction and opercular evolution in cartilaginous fishes. *Proceedings of the National Academy of Sciences of the United States of America* **108**(4), 1507–1512.
- Kakumura, K., Watanabe, S., Bell, J. D., Donald, J. A., Toop, T., Kaneko. T. and Hyodo, S. (2009) Multiple urea transporter proteins in the kidney of holocephalan elephant fish (*Callorhinchus milii*). *Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology* **154** (2), 239–247.
- Hyodo, S., Bell, J. D., Healy, J., Kaneko, T., Takei, Y., Donald, J.A. and Toop, T. (2007) Osmoregulation in elephant fish, *Callorhinchus milii* (Holocephali) with special reference to the rectal gland. *Journal of Experimental Biology* **210**, 1303–1310.
- Jennings, B., Bell, J. D., Hyodo, S., Toop, T. and Donald, J. (2007) Mechanisms of vasodilation in the dorsal aorta of the elephant fish, *Callorhinchus milii* (Chimaeriformes: Holocephali). *Journal of Comparative Physiology B* **177**, 557–567.
-

Book Chapters

Jones, C. C. P., Walker, T. I., Bell, J. D., Reardon, M., Ambrosio, C. E., Almeida, A. and Hamlett, W. C. (2005) Male genital ducts and copulatory appendages in Chondrichthyans. In 'Reproductive Biology and Phylogeny of the Chondrichthyes'. Volume 3 in the 'Reproductive Biology and Phylogeny' series. Volume editor W. C. Hamlett. Series editor B. G. M. Jamieson. Science Publishers Inc. Enfield, New Hampshire, USA.

Reports

Bell, J. D., Watson, R. and Ye, Y. (2015) A global, regional and national developmental status assessment of fishing capacity and fishing effort from 1950 to 2012. Report to the Food and Agriculture Organisation of the United Nations, Rome, Italy.

Emery, T., Bell, J., Lyle, J. and Hartmann, K. (2015) Tasmanian Scalefish Fishery 2013/14. Institute for Marine and Antarctic Studies.

Lyle, J. M., Bell, J. D., Chuwen, B. M., Barrett, N., Tracey, S. R. and Buxton, C. D. (2014) Assessing the impacts of gillnetting in Tasmania: Implications for by-catch and biodiversity. Final Report to the Fisheries Research and Development Corporation project 2010/016. Institute for Marine and Antarctic Studies.

Ierodiconou, D., Miller, A. D., Rattray, A., Weeks, A. R., Gorfine H. K., Peeters, H., Van Rooyen, A., Jalali, M. A., Bell, J. D. and Worthington, D. (2014) Spatial patterns, landscape genetics and post virus recovery of blacklip abalone, *Haliotis rubra* (Leach), in the western commercial fishing zone of Victoria, Final Report to the Fisheries Research and Development Corporation project 2011/033. Deakin University, Warrnambool.

Lyle, J., Bell, J., Moore, A. and Stewart, J. (2014) Common Jack Mackerel *Trachurus declivis*. In 'Flood, M, Stobutzki, I, Andrews, J, Ashby, C, Begg, G, Fletcher, R, Gardner, C, Georgeson, L, Hansen, S, Hartmann, K, Hone, P, Horvat, P, Maloney, L, McDonald, B, Moore, A, Roelofs, A, Sainsbury, K, Saunders, T, Smith, T, Stewardson, C, Stewart, J & Wise, B (eds) 2014, *Status of key Australian fish stocks reports 2014*, Fisheries Research and Development Corporation, Canberra'.

Semmens, J., Gorfine, H., Marton, N., Jarvis, D. and Bell, J. (2014) Commercial Scallop *Pecten fumatus*. In 'Flood, M, Stobutzki, I, Andrews, J, Ashby, C, Begg, G, Fletcher, R, Gardner, C, Georgeson, L, Hansen, S, Hartmann, K, Hone, P, Horvat, P, Maloney, L, McDonald, B, Moore, A, Roelofs, A, Sainsbury, K, Saunders, T, Smith, T, Stewardson, C, Stewart, J & Wise, B (eds) 2014, *Status of key Australian fish stocks reports 2014*, Fisheries Research and Development Corporation, Canberra'.

Lyle, J., Bell, J., Green, C. and Andrews, J. (2014) Banded Morwong *Cheilodactylus spectabili*. In 'Flood, M, Stobutzki, I, Andrews, J, Ashby, C, Begg, G, Fletcher, R, Gardner, C,

Georgeson, L., Hansen, S., Hartmann, K., Hone, P., Horvat, P., Maloney, L., McDonald, B., Moore, A., Roelofs, A., Sainsbury, K., Saunders, T., Smith, T., Stewardson, C., Stewart, J. & Wise, B (eds) 2014, *Status of key Australian fish stocks reports 2014*, Fisheries Research and Development Corporation, Canberra’.

Noriega, R., Bell, J. and Lyle, J. (2014) Gould’s Squid *Nototodarus gouldi*. In ‘Flood, M., Stobutzki, I., Andrews, J., Ashby, C., Begg, G., Fletcher, R., Gardner, C., Georgeson, L., Hansen, S., Hartmann, K., Hone, P., Horvat, P., Maloney, L., McDonald, B., Moore, A., Roelofs, A., Sainsbury, K., Saunders, T., Smith, T., Stewardson, C., Stewart, J. & Wise, B (eds) 2014, *Status of key Australian fish stocks reports 2014*, Fisheries Research and Development Corporation, Canberra’.

Flood, M., Liggins, G., Bell, J. and Andrews, J. (2014) Tiger Flathead *Neoplatycephalus richardsoni*. In ‘Flood, M., Stobutzki, I., Andrews, J., Ashby, C., Begg, G., Fletcher, R., Gardner, C., Georgeson, L., Hansen, S., Hartmann, K., Hone, P., Horvat, P., Maloney, L., McDonald, B., Moore, A., Roelofs, A., Sainsbury, K., Saunders, T., Smith, T., Stewardson, C., Stewart, J. & Wise, B (eds) 2014, *Status of key Australian fish stocks reports 2014*, Fisheries Research and Development Corporation, Canberra’.

Bell, J. and Gorfine, H. K. (2012) Considerations for the development of a Port Phillip Bay dive fishery for scallops (*Pecten fumatus*). Fisheries Victoria Internal Report No 49, 19 pages. Department of Primary Industries, Queenscliff, Victoria, Australia.

Green, C., Brown, P., Giri, K., Bell, J. and Conron, S. (2012) Quantifying the recreational catch of southern bluefin tuna off the Victorian coast. Recreational Fishing Grant Program – Research Report. Department of Primary Industries, Victoria.

Gorfine, H. K., Bell, J., Mills, K. & Lewis, Z. (2012) Removing sea urchins (*Centrostephanus rodgersii*) to recover abalone (*Haliotis rubra*) habitat. Fisheries Victoria Internal Report No 46, 20 pages. Department of Primary Industries, Queenscliff, Victoria, Australia.

Gorfine, H. K., Bell, J.D. and Lewis, Z (2010). Human impacts on Victorian intertidal habitats. Internal report to Fisheries Victoria.

Bell, J. D., Stivala, J. and Gorfine, H. (2008) Harvest strategies and survey methodologies for the Victorian commercial scallop fishery. Internal report to Fisheries Victoria, July, 2008.

Walker, T. I., Stevens, J. D., Braccini, M., Daley, R. K., Huveneers, C., Irvine, S. B., Bell, J. D., Tovar-Ávila, J., Trinnie, F. I., Phillips, D. T., Treloar, M. A., Awruch, C. A., Gason, A. S., Salini, J. and Hamlett, W. C. (2008) Rapid assessment of sustainability for ecological risk of shark and other chondrichthyan bycatch species taken in the Southern and Eastern Scalefish and Shark Fishery. FRDC Report 2002/033.

Bell, J. D. and Morison, A. K. (2006) Methods for the quantification and restriction of the Victorian recreational rock lobster fishery. Internal report to Fisheries Victoria. January, 2006.

Walker, T. I., Bell, J. D., Hudson, R. J., Reardon, M. B., Smith, R. M. and Hamlett, W. C. (2005) Reproductive biology of elephant fish (*Callorhynchus milii*) harvested off southern Australia. In 'Sawshark and elephant fish assessment and bycatch evaluation in the Southern Shark Fishery', FRDC Project No. 1999/103.

Presentations

Bell, J. D., Watson, R. and Ye, Y. A global, regional and socio-economic developmental status assessment of fishing capacity and effort. Invitational presentation at the University of Malaysia, Sabah Campus, Kota Kinabalu, July 2015

Takagi, W., Kajimura, M., Tanaka, H., Bell, J. D. and Hyodo, S. A functional shift of urea-producing site from extraembryonic yolk sac to liver in the developing embryos of two oviparous cartilaginous fishes. Oral presentation by W. Takagi at the 2014 International Congress on the Biology of Fish. Edinburgh, Scotland.

Gorfine, H., Ellis, G., Bell, J. D. and Lewis, Z. Removing sea urchins (*Centrostephanus rodgersii*) to recover abalone (*Haliotis rubra*) habitat. Oral presentation at the 2011 Australian Abalone Convention. Hamilton Island, Queensland, Australia.

Ibrahim, A. S., Venkatesh, B., Brenner, S., Walker, T. I., Bell, J. D. and Danks, J. Parathyroid hormone-related protein genes in chondrichthyan fish. Oral presentation by A. Ibrahim at the 2007 Comparative Endocrinology of Calcium Regulation conference. Montreal, Canada.

Bell, J. D., Walker, T. I., Hamlett, W. C. and Laurenson, L. Age estimation and reproduction of southern Australian holocephalans and the white-fin swell shark (*Cephaloscyllium spp.*). Oral presentation at the 2007 Oceania Chondrichthyan Society Conference, Queenscliff, Victoria, Australia.

Bell, J. D., Walker, T. I., Hamlett, W. C. and Laurenson, L. Age estimation and reproduction of southern Australian holocephalans and the white-fin swell shark (*Cephaloscyllium spp.*). Oral presentation at the 2006 South Queensland Elasmobranch Research Forum, Stradbroke Island, Queensland, Australia.

Bell, J. D., Walker, T. I., Hamlett, W. C. and Laurenson, L. Age estimation and reproduction of southern Australian holocephalans and the white-fin swell shark (*Cephaloscyllium spp.*). Oral presentation at the 2006 Australian Society of Fish Biology meeting, Hobart, Tasmania, Australia.

Toop, T., Healy, J., Bell, J., Takei, Y. and Hyodo, S. Osmoregulatory strategy in the elephant fish, *Callorhynchus milii*. Oral presentation by T. Toop at the 2005 Australian and New Zealand Society for Comparative Physiology and Biochemistry Conference, Dunedin, New Zealand.

Hyodo, S., Takei, Y., Bell, J.D., Donald, J.A., Anderson, G. and Toop, T. Osmoregulation in elephant fish, *Callorhynchus milii* (Holocephali). Oral presentation by S. Hyodo at the 2005 meeting of the American Society of Comparative Physiology, Boston, USA.

Bell, J. D., Walker, T. I., Hamlett, W. C. and Laurenson, L. The reproductive biology of holocephalan fishes. Oral presentation at the 7th Indo-Pacific Fish Conference. Taipei, Taiwan, June, 2005.

Bell, J. D., Walker, T. I., Hamlett, W. C. and Laurenson, L. The reproductive biology of the elephant fish (*Callorhynchus milii*). Oral presentation at the 2004 Australian Society of Fish Biology meeting, Adelaide, South Australia.

Hyodo, S., Bell, J.D., Donald, J.A., Takei, Y. and Toop, T. Osmoregulation in elephant fish, *Callorhynchus milii* (Holocephali). Oral presentation by S. Hyodo at the 2004 meeting of the Japanese Zoological Association, Tokyo, Japan.