

Dr Jane Elek

Curriculum Vitae

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Qualifications

Doctor of Philosophy Science (Applied Entomology) 1995 Division of Botany and Zoology, Australian National University, Canberra ACT, conducted in CSIRO, Division of Entomology, Stored Grain Research Laboratory.

- Thesis: The response of *Rhizopertha dominica* and *Sitophilus oryzae* to chitin synthesis inhibitors in stored grain.

Master of Science Biology (Environmental Studies) 1985 George Mason University, Fairfax, Virginia USA

- Thesis: Shell color polymorphism in natural populations of the Atlantic bay scallop, *Argopecten irradians irradians* (Lamarck). Grade A.
- Postgraduate courses: population ecology, coastal and estuarine ecology, terrestrial plant ecology, environmental studies, tropical ecosystems, biostatistics, experimental design and analysis.

Bachelor of Science (Honours 2A) Zoology 1969 Australian National University, Canberra ACT.

Experience

1994 - present. Project officer (Research Entomologist) in Biology and Conservation Branch, Division of Forest Research and Development, Forestry Tasmania, Hobart.

As leader of the Insect Pests research team in Forestry Tasmania and a member of the Resource Protection Program of the CRC for Sustainable Production Forestry, I am responsible for planning, supervising and carrying out projects aimed at refining the Integrated Pest Management system used by Forestry Tasmania for protecting eucalypt plantations from economic damage by leaf beetles. My main objectives are to estimate the economic impact of leaf beetles and other major insect pests on wood production, and identify measures for protecting the trees from economic damage that are effective, have low impact on the environment and are economically feasible.

1991 - 1994 PhD research, Division of Botany and Zoology, ANU.

This research investigated the effects of a group of insect growth regulator insecticides, the chitin-synthesis inhibitors, on the fertility and fecundity of several species of stored grain beetles.

- 1987 - 1991 Technical assistant / officer in the Stored Grain Research Laboratory, Division of Entomology, CSIRO, Canberra.
- 1986 - 1987 Research assistant, Zoology Department, Australian National University, Canberra.
- 1980 - 1985 Part time study toward an MSc at George Mason University, Virginia, USA.
- 1969 - 1980 Various Research, Technical and Tutoring positions in Australia, UK and Papua New Guinea.

Society Memberships

Australian Entomological Society; State Councillor 1997 - 1999

Tasmanian Marine Naturalists Association: President

TDA Crabs Dive club

Lady Nelson Sail Training Association

Roaring 40's Ocean Kayaking

Publications - Refereed

- Banks, H. J., Desmarchelier, J. M. and Elek, J. A. (1976). Determination of bromine ion content of cereals and other foodstuffs by specific ion electrode. *Pesticide Science* 7: 595-603.
- Elek, J. A. and Adamkewicz, S. L. (1990). Polymorphism for shell color in the Atlantic bay scallop, *Argopecten irradians irradians* (Lamarck) (Mollusca: Bivalvia) on Martha's Vineyard island. *American Malacological Bulletin* 7 (2): 117-126.
- Nicholas, W. L., Elek, J. A., Stewart, A. C. and Marples, T. G. (1991). The nematode fauna of a temperate Australian mangrove mudflat: its population density, diversity and distribution. *Hydrobiologia* 209: 13-27.
- Elek, J. A. and Longstaff, B. C. (1994). The effect of chitin synthesis inhibitors on stored product beetles. *Pesticide Science* 40 (3): 225-230.
- Elek, J. A. (1994) Methods for collecting eggs, assaying egg hatch and monitoring immature development of *Rhyzopertha dominica* (F.) (Coleoptera: Bostrichidae) at two temperatures. *Journal of Stored Product Research* 30 (4): 261-265.
- Elek, J. A. (1994). The response of *Rhyzopertha dominica* and *Sitophilus oryzae* to chitin synthesis inhibitors in stored grain. PhD thesis, 167 pages.
- Elek, J. A. (1997). Assessing the impact of leaf beetles in eucalypt plantations and exploring options for their management. *Tasforests*, 9, 139-154.
- Elek, J. A. (1998). Treatment of adult Coleoptera with a chitin synthesis inhibitor affects mortality and development time of their progeny. *Entomologia experimentalis et applicata* 88, 31-39.
- Ramsden, N. and Elek, J. (1998). Life cycle and development rates of the leaf beetle *Chrysophtharta agricola* (Coleoptera: Chrysomelidae) on *Eucalyptus nitens* at two temperature regimes. *Australian Journal of Entomology*, 37(3), 238-242.

- Elek, J. A. (1999). Treatment of both the adult and immature Coleoptera with a chitin synthesis inhibitor affects mortality and development time of their progeny. *Entomologia experimentalis et applicata* 89, 125-136.
- Beveridge, N. and Elek, J. (1999). *Bacillus thuringiensis* var. *tenebrionis* shows no toxicity to the predator, *Chauliognathus lugubris* (F.) (Coleoptera: Cantharidae). *Australian Journal of Entomology* 38(1), 34-39.
- Elek, J. A. and Beveridge, N. (1999) Effect of a *Bacillus thuringiensis* subsp. *tenebrionis* insecticidal spray on the mortality, feeding and development rates of larval Tasmanian eucalyptus leaf beetles (Coleoptera: Chrysomelidae). *The Journal of Economic Entomology* 92(5), 1062-1071.
- Beveridge, N and Elek, J.A. (2001). Insect and host tree species influence the effectiveness of a *Bacillus thuringiensis* subsp. *tenebrionis* based insecticide for controlling chrysomelid leaf beetles. *Australian Journal of Entomology*, 40 (4), 386-390.
- Candy, S. G. and Baker, S. C. (2002) Calculating food consumption in the laboratory: a formula to adjust for natural moisture loss. *Australian Journal of Entomology* 41. in press.
- Baker, S. C., Elek, J. A. and Candy, S. G. (2002) A comparison of feeding efficiency, development time and survival of Tasmanian *Eucalyptus* leaf beetle larvae, (*Chrysophtharta bimaculata* (Olivier) (Coleoptera: Chrysomelidae) on two hosts. *Australian Journal of Entomology* 41, 174-181.
- Baker, S. C., Elek, J. A., Bashford, R., Patterson, S. C., Madden, J. and Battaglia, M. (2003) Innundative release of coccinellid beetles into eucalypt plantations for biological control of leaf beetles. *Agricultural and Forest Entomology* 5, 97-106.
- Elek, J., Steinbauer, M. J., Beveridge, N. & Ebner, P. (2003) The efficacy of high and low volume spray applications of Mimic (tebufenozide) for managing autumn gum moth larvae *Mnesampela privata* (Lepidoptera: Geometridae) in eucalypt plantations. *Agricultural and Forest Entomology*, 5, 325-332.