



‘Naturalist-In’ Series
IN THE WET
by Christopher K. Starr



Review of:

William Laurance 2000. *Stinging Trees and Wait-a-Whiles: Confessions of a Rainforest Biologist*. Chicago: Univ. Chicago Press 196 pages.

[56th in a series on "naturalist-in" books; see www.ckstarr.net/reviews_of_naturalist.htm]

As noted at least once before, naturalist-in literature is mainly an anglophone genre. Australia, one of the places settled by English speakers far from Britain, is home to a very rich and distinctive biota. As expected, it has given rise to much naturalist-in writing. My computer bibliography of such books references 15 from that part of the world, including the subject of review No. 9 in this series. It is time for another, this one from quite a different area.

We think of the island-continent of Australia as an arid place, which most of it is. However, five million years ago rain forest covered most of it. The forest has been in retreat ever since and hangs on now only in the wettest areas, mainly in the northeast of the state of Queensland. Rain forest today accounts of less than 1% of Australia's land area. It is not just long-term climatic change that has been reducing it, as logging continues apace, a contentious public issue.

William Laurance spent a year and a half in the rain forests of northern Queensland doing research toward his PhD. His main attention was to a narrow band skirting the northeast coast of the island. One reason for choosing Australia, rather than Latin America, for this project was of the most mundane character: he could only speak English. It is rather amusing, then, that he later went on to work in Brazil.

The book has 21 chapters and a postscript. The latter is mostly clutter that has little to do with the main themes. There are many photos of sites, people and other mammals.

The research was conducted in the Atherton Tableland, an area that was originally rain forest, but where only fragments now remain. The Atherton Tableland counts as a biodiversity hotspot, with many relict species. Many of the forest fragments of the Atherton Tableland had been isolated for more than 50 years. This is in contrast to most of the world's rain-forest fragments, which are quite recent. Laurance spoke with an Aborigine known as Old Harry—the last living speaker of his dialect—about what the local rain forest was like before the European presence. Old Harry mentioned some animals that are no longer present and some others that have become very rare.



Common brushtail possum (*Trichosurus vulpecula*) . Photo courtesy WikiCommons



Musky rat kangaroo. Photo courtesy Wiki Commons / Joseph C Boone

The area has a great deal of seasonal fluctuation in temperature and especially rainfall. In the wet season moisture penetrates everything and makes it easier for people to contract infections and skin problems. Heavy rain can turn small streams into furious torrents, making field work that much more difficult.

Laurance's study area was around the small (pop. 320) town of Millaa Millaa. As a sign of the town's cultural backwardness, it had just one pub but two churches. He got a dog, bought a truck, and rented a spacious house.

His research problem was survival of the mammals in rain forest fragments. Using baited live traps and spotlighting with a flashlight, he compared populations in small fragments with those in larger tracts. He also took the opportunity to conduct cafeteria experiments with some captive animals whose diets were poorly known. In this very simple kind of experiment, an array of possible foods is laid out, and it is noted which the animal selects.

This kind of study is necessarily very data-intensive, and clearing trails with his assistant to lay out the trap grids was hard work. Later he recruited volunteers, often two at a time, each for one month, and established a division of labour for the great mass of unavoidable drudgery to make the work go faster. Then he advertised in a youth hostel in Cairns, the capital city of Queensland, after which the group of volunteers grew at times to 10 persons of various nationalities. In time there were more candidates than he could accommodate, so Laurance instituted the requirement that only those willing to stay at least a month could join the project.

The kind of work they faced was not for wimps. In advertising for volunteers, he had neglected to mention the nasty plants and that other scourge of many rain forests, land leeches. Still, those that kept at it proved to be good workers. The book has much about the 42 volunteers' personalities. I assume that he used their real names.

With such a set of young people of diverse background and temperament, Laurance had to act both as team leader and at times as a sort of parent. Even though most of his assistants were volunteers, managing a team of non-scientists required a high level of discipline. This was especially true with respect to collecting and handling data, something that most volunteers had to be taught from the beginning. They were studying the effects of forest disturbance on populations, with a great deal of measurement of parameters: soil characters, forest structure, the abundance of certain key plants, and quantities of fallen fruit (an important source of food for some mammals). It was repetitive, often tedious work.

Keeping a crowd of lively young people out of trouble required a different kind of discipline. In order to avoid disputes with the town's lone policeman, he also had to maintain a strict no-drugs policy. His no-drugs policy applied only to controlled substances. On the night before several of the crew were to leave, everyone got drunk and proceeded to a riotous food fight. It was all good, clean fun, a bonding experience. Even so, it wasn't best for scientific productivity, so after that Laurance tried to instill a policy of sobriety.



Stinging tree (*Dendrocnide moroides*). Photo courtesy N.Teerink

There were also matters of personal safety. Getting lost in the forest would have been both easy and dangerous, so that the crew kept strictly to the trails and carried compasses. Even without getting lost, there were hazards. Some of these came from plants, such as the “stinging tree” (*Dendrocnide moroides*; Urticaceae; actually, an

understorey shrub) whose leaves are covered with venomous spines reminiscent of our own *Cnidocolus urens*. And the wait-a-while is a rattan (climbing palm) with hook-like spines that can be very damaging to the careless.



Jawed leech (*Gnatbobdellida libbata*). Photo courtesy Garigal National Park.

And there are ticks, one kind of which brings about potentially fatal paralysis if not removed in time, as well as those of pesky land leeches attaching to one's innocent limbs. It is understood that in Australia, where most snakes are highly venomous, there will be encounters in the course of field work. Accordingly, Laurance and his crew had plenty of “adventures”, but fortunately it is no longer fashionable to include that word in the titles of naturalist-in books. Despite the many adventures and colourful personalities, this is a serious book with a wealth of scientific content. It is not just for entertainment.

Keeping the project on track also required getting along with the locals, especially as some of the field work was on private land. In addition, there was a substantial political component, as conflicting interests were at play. Laurance took the opportunity to give public talks about his research and conservation biology. He spoke in favour of declaring the Queensland rain forests a World Heritage Site, something that would put an end to logging in the area. This was not a lone stance by Laurance, as there already existed groups advocating for it. Tension with some of the locals who depended on logging and farming led to some outright hostility. However, this proposal was not



Map of the wet tropics of Queensland. Photo courtesy Natural World Heritage Sites website.

as sharply contentious as it would likely have been earlier, as the logging industry was already in an unavoidable downturn.

Nonetheless, on the whole local public opinion went clearly against World Heritage designation at the time, and the controversy brought out an ugly vindictiveness in some of the opponents. There were threats against Laurance's group, and he did not regret leaving when the project ended. He ended his stay with a well-attended public meeting at which he presented his research findings and answered questions about the World Heritage proposal. This helped to cool the over-heated public tone around the issue as local people came to realize that World Heritage designation would not spell the economic disaster

predicted by the alarmists and could bring new economic opportunities to the area.

This question entered into national politics as a general election approached. The prime minister, Bob Hawke, standing for re-election as head of the Labor Party, declared his support for World Heritage designation. His opponent, the premier of Queensland, made opposition to it a key part of his platform. Labor prevailed, and the Wet Tropics of Queensland World Heritage Site was established the following year (1988). It is one of 35 such sites in Australia, 12 of them nature sites.

