Knowing that pied imperial-pigeons help create forests by dispersing seeds adds interest to the experience of seeing them up in trees. They are responsible for the rainforest found on many islands along the Great Barrier Reef. *Photo: Terry Reis*

Yellow-blotched forest-skinks (*Eulamprus tigrinus*) live in tropical rainforest, but you need to know more than that if you expect to see one, because they are seldom encountered away from strangler figs and large logs. *Photo: Terry Reis*

To Be a Natural Historian

A natural historian is never bored. **Terry Reis** makes the case for an expansive focus on nature.

I like to call myself a natural historian. I'm not sure why exactly and it's hardly an intuitive term. The *Oxford English Dictionary* defines it as an 'expert in or writer on natural history; a naturalist'. Around since at least 1640, the term has longevity on its side. Personally I've always shied away from the term 'naturalist' to avoid any suggestion I take off my clothes in public.

Although the 'history' part of natural history has its origins in an archaic use of the term to mean 'systematic account', I enjoy the historical aspect of flora and fauna. After all, how can you really comprehend and appreciate current environments without an understanding of what went before, either as what was physically present or what was understood by the people of the day. Anyone serious about nature has to adopt a historical perspective. So, I'm content with natural historian as a label. It doesn't mean you need to be an expert or a writer. You simply require an interest in nature that is broad.

The benefits of being broad

The world of natural history is occupied by individuals with an enormous range of skills and knowledge, each fitting somewhere along a continuum from rank novice to demi-god. Having a highly specific skill set, such as being able to identify every Australian bird, has its benefits but does not make a natural historian and may even prove a barrier.

Skills are usually commensurate with level of interest and dedication, although age, fitness, employment, place of residence, education, amount of spare time and disposable income are also influential. Not everyone is born equal, of course. Some people are remarkable at recognising bird or frog calls and some never come to grips with this skill, substantial effort notwithstanding. But differences in potential don't preclude people from acquiring broad skills. They are more likely to be limited by their own expectations and interests.

So why should you want to be a natural historian rather than a narrow specialist? I can think of four related benefits: you increase your skills and knowledge in the areas of most interest to you; you enhance the time you spend in the field; previously uninteresting locations and activities become interesting; and you increase your educational capacity, an important conservation consideration even if you have no wish to formally educate others.

You also become a better dinner guest. I'm a keen birder, but I quickly get bored if birds are the only topic of conversation. I've met a few people who've apparently sold their personality to the Beelzebub of Birding.

Increased skills and knowledge

You could argue that a more narrow focus enables you to become more expert in a particular field. But your expertise will be limited if you fail to explore relationships with other groups and with the landscape. For example, knowing a tree whose fruit is eaten by an animal increases your likelihood of finding that animal. Mistletoes provide food for painted honeyeaters, and she-oaks for glossy black-cockatoos, so knowing these plants helps you find them.

Even for the most botanically challenged, recognising a she-oak is easy but not all she-oaks suit cockatoos. You need to know the species whose seeds they like. But more than that, glossy black-cockatoos prefer some individual trees over others, so you should also know their feeding signs – chewed cones under trees – and how to distinguish their chewings from those of sulphur-crested cockatoos. Finding a glossy black-cockatoo is much easier if you know more than simply that it's the least glossy of the black-cockatoos.

As another example, after years of failing to find long-tailed pygmy-possums, I was advised by zoologist John Winter to target flowering bumpy satin ash (*Syzygium cormiflorum*), a tree with nectar they like. I had seen one earlier that day, and in it the next night I saw a giant white-tailed rat, a Herbert River ringtail and the pygmy-possum. Once I found a green python because I investigated the alarm calls of three honeyeater species. Alarmed birds such as butcherbirds often lead me to predators or unusual events, such as possums active by day.

Gilgais (small depressions) and cracking clays suggest the presence of certain burrowing frogs and the snakes that specialise in eating them. Any good herper (someone who looks for reptiles and frogs) knows how important structure is. If I want to see yellow-blotched forest-skinks, I don't wander around aimlessly

Anyone who wanders about at night after rain will encounter frogs, but the rough frog (*Cyclorana verrucosa*) is an inland species that can be found only by targeting pools that form on heavy clay soils. *Photo: Terry Reis*

in a rainforest. I target large logs and strangler figs. Structure decides the value of a patch of habitat to a whole range of species. A lack of complexity often shows that a site is disturbed and unlikely to have a full suite of species. Yet some people view structural complexity as simply an obstacle to seeing an animal or to traversing the land.

If you want to be a natural historian, it is important that you look at a habitat as an entity in itself, not simply look for organisms within it. Speaking as a Queenslander, the Regional Ecosystem concept encourages me to look carefully at habitats. It is a classification scheme based on bioregion, land zone (substrate) and plant species, mostly used by botanists to map the landscape. For a long time I considered it pointless to ascribe a numeric code to a habitat. But now, besides the childish pleasure I get in making arcane statements like 'there's some 11.9.5', it forces me to look at habitats in detail and see important, though sometimes subtle, differences.

Enhanced interest

A wide interest means there is always something to enjoy even if your first passions, be they orchids, beetles or birds, are in short supply. If it's too hot for birds, look for reptiles; if it's wet, seek out frogs and frog-eating snakes; if it's too cold and dry for them, try birds and mammals. The advantage of invertebrates and plants is their availability under any conditions.

And let's not forget the history part of natural historian. Knowing something of the history of flora and fauna can make something mundane more interesting. For example, Melbourne in the 1960s had no sulphur-crested cockatoos, galahs or rainbow lorikeets. So why are they now so common? Otherwise commonplace sightings of common brushtails and ringtails in Brisbane suburbs are reason to ponder why they are so much harder to find in natural habitats west of the ranges.

Knowing more about a species can make certain observations stand out as special – if you know you've seen it in an unusual habitat or outside its usual range or eating atypical food. Your knowledge of biogeography, a very important component of natural history, and taxonomy allows you to see a species and consider its place in the world. How is it related to species in Asia, or Africa or the Neotropics? Why is it only found in one region in Australia and nowhere else, or why is it cosmopolitan? What is it about its life history that enables it to occur in so many places around the world? You go overseas and view habitats and species with regard to how similar or how different they are to Australia. Really, how could you ever be bored?

Anyone serious about nature has to adopt a historical perspective.

A better educator

What do you do with your skills beyond the pleasure they bring you? The definition I quoted included writing on the subject. Although not necessary, becoming a documenter adds a whole new dimension and lets you share what you learn. Work as a wildlife guide has shown me how much people enjoy learning how an animal or plant fits into its world. They like to know that the pied imperial-pigeon they are seeing is a seed disperser that helps forests regenerate. Explaining such relationships often prompts people to see the conservation issues without any effort on your part.

Photography is something else that turns a simple walk into opportunities for pleasure and edification. It improves your field skills and knowledge. I have identified invertebrates, plants and fungi simply because I wanted to know what I had photographed. More than once I've had friends correct my identification based on my photo (a real test of friendship). Photography may require you to stalk an animal, which forces you to study its behaviour: is that robin returning to the same perch, when will that lizard re-emerge from its crevice, and what does the posture of this snake I'm photographing mean to my personal safety?

It is impossible to learn much about one aspect of natural history without picking up other bits of information. Even the narrowest people learn something of other fields. By enthusiastically embracing as many components of nature as possible, you'll enjoy your main interests even more because your knowledge will be more encompassing.

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