

Natural history, science and conservation: the 70 year legacy of the North Queensland Naturalist 1933-2002

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Abstract

This paper presents an over-view of the original journal based on a review of the collection held by the Cairns Historical Society. It focusses on the scope of material covered, examples of subjects and some of the many significant authors who published their observations over the period.

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Introduction

Reading the editorials in the first volume of the *North Queensland Naturalist*, published in 1932, was a "back to the future" moment giving me a sense of *deja vu*. The initial editorial in particular (Volume 1, No. 1, October 1932) drew attention to the pressing need to understand the outstanding nature of our region with specific reference to the Great Barrier Reef, Cape York Peninsula, the flora and fauna of "the tropical jungle", marsupials, birds, geological strata and the coral reefs. The Editor drew attention to Australians being very much alive to economic opportunities in the environment but less aware of the wonders of our natural world. He specifically mentions a lack of knowledge about how our economic activities and our lifestyle might interact with the Reef. How prescient!

In the second issue, the Editorial appears to reflect public debate about these issues, drawing attention to the tension between some views about development and other views about conservation. It was clear where the North Queensland Naturalist Club stood. The comments resonate in the present day so much it is worth quoting from the then editor:

"The obliterating of a district's natural vegetation and fauna is not a weakness so much

as a wickedness. It has not only its aesthetic or academic evils, but also its economic and intellectual wrongs." (Volume 1, No 2, November 1932).

The Editor refers to a request that "*the natural flora of the Far North should be regarded as a heritage to be protected*". That editorial goes on to indicate that the Club wanted to see "*reserves of National character actually nationalised in the matter of control*", an issue that reflected concerns about the sometimes parochial decisions of local boards, with Lake Barrine being a case in point at the time. How perspicacious.

Themes and subjects

The early volumes were clearly meeting a need to disseminate natural history observations about tropical Queensland and to help the wider community become better acquainted with its outstanding natural features. The journal was a vehicle for many original observations being made and filled a gap in opportunities to publish. The *North Queensland Naturalist* predated the proliferation of specialist journals and gave local and national researchers a place to publish. Reading through the authors' names it is surprising

how many highly notable researchers have published in the *North Queensland Naturalist*.

Botanical and marine themes

Not surprisingly, the range of themes and subjects was quite large and included botany, within which orchids featured prominently. Dr Hugo Flecker, founding and longest-serving President of the North Queensland Naturalists Club, contributed several articles on botanical topics, a particular interest of his. Also prominent amongst the botanical works are many contributions by A. W. Dockrill (on orchids) and other authors on ferns and mangroves. In the case of the latter the internationally famous Dutch botanist CGGJ Van Steenis wrote a piece on *Sonneratia* (Van Steenis 1968). Van Steenis was already active both as a botanist and a conservationist within Indonesia (Fig. 1). Local Club member J.A. McLean recorded a significant extension to the known range of the mangrove *Bruguiera cylindrica* south to Cooktown (McLean 1993). In an interesting coincidence, our first relaunched edition includes a further southward extension to the known range of this same mangrove species (Kudo 2016). Rob Jago and other local authors contributed on plants in the Cairns area. Other botanical papers included some on ant-plants, *Aristolochia* vines, surveys of plants at different locations, initial discoveries of new plants in northern Queensland, and on bush tucker. An interesting early article reported on the Club's opposition to a proposal to plant Bouganvillea and other introduced species on the Cairns-Kuranda Range. The Club's

"main fear was (and is) that the native charm and character of the Tropical North, with its already unrivalled profusion of glorious flora, was to be destroyed by the introduction of alien blooms that, beautiful in themselves, would merely perpetuate the landscapes of other places" (Anonymous 1933)

Another significant theme was marine with a focus on the reef and coastal processes. Barbara Collins contributed many papers on coral reefs and nationally well-known conservationist Vincent Serventy wrote on marine matters. One of Australia's most eminent coastal geomorphologists, Professor Eric Bird of the University of Melbourne, wrote for the journal (Bird 1972). There was a special edition on the Box Jellyfish (*Chironex fleckeri*), the species being named after



Figure 1. Professor CGGJ Van Steenis, probably taken early in his career while working on the Flora of Malesiana.

Source: National Herbarium, the Netherlands.

the Club's founding President. The Cairns mudflat received a considerable amount of attention including its long recognized importance for migrant shorebirds. Coral cays and other Great Barrier Reef islands were the focus of several papers. A lecture was given in 1933 by James Park Thomson and reported in the journal. He was the Founder and Secretary of the Royal Geographical Society of Queensland and he spoke about the Great Barrier Reef expressing concern over coral destruction and marine bird mortality. The Crown-of-thorns Starfish (*Acanthaster planci*) also received attention.

Gilbert P. Whitley was one of Australia's pioneer marine biologists (Fig. 2). Born in England in 1903, Whitley migrated to Australia in 1921, where he was Curator of Ichthyology at the Australian Museum for 39 years. He described over 320 species of fishes, and published over 500 technical reports and papers, and five books. He is remembered as a man of great wit and charm.



Figure 2. G.P. Whitley examining a fish in 1941 at the Australian Museum.

Whitley was one of Australia's most prolific authors. Source: Australian Museum.

Many wonderful quotes are attributable to Whitley. Concerning the gudgeons, he said

“In retrospect, I conclude that my apathy towards gudgeons must be due to my ignorance concerning them. Fishes which lie dormant for months in mud and clay yet which may be transported through the clouds surely cannot be dull save to the dull themselves.” (quoted at the Australian Museum web site)

His paper in the *North Queensland Naturalist* described a filefish new to Queensland (Whitley 1953).

Aboriginal, anthropological and archaeological themes

Throughout its life there were numerous articles in the *North Queensland Naturalist* that provided information on Aboriginal culture and artefacts. Stone axes feature often, as does that uniquely tropical rainforest stone tool the Ooyurka. The latter is a T-shaped stone used to scrape seed from the grinding stones with an efficient push-pull motion and also used to cut grooves in stone axes. Founding Club President Hugo Flecker also wrote about these fascinating and unique tools (Flecker 1954). The magnificent stone fish traps at Hinchinbrook Island and elsewhere provide

another focus. Cave and rock paintings are described as are some of the Dreamtime stories and legends. There is one article by an Indigenous author on the effects of European settlement in the 19th century on Indigenous people (Rhys 1954).

Perhaps the most internationally renowned of our authors was Norman B. Tindale, who wrote a piece on the rock art around Cairns (Tindale 1952). Tindale was one of those amazing, multi-skilled, enormously capable researchers who made contributions in many different fields. Although best known for his anthropology he contributed very much in entomology, human ecology, archaeology, geology and linguistics. His best-known publication was his exceptionally detailed work on the Aboriginal tribes of Australia with its famous map (Fig. 3). Perth born and based at the South Australian Museum for much of his career, Tindale eventually moved to the USA at the end of his career.

Mammals and birds

Mammals provide another important theme throughout the history of the *North Queensland Naturalist*. A host of articles report observations of different species and the ecology and behaviour of studied species. These included wallabies and gliders, bats, bandicoots, bettongs, pademelons and tree kangaroos. Notable authors included Walter Boles (on the Ghost Bat, *Macroderma gigas*), Rupert Russell (including glider and possum papers) and Nicky Goudberg who wrote on denning and diet. Several papers report on mammals and other species at particular locations. Other papers look at conservation or management issues including Miriam Goosem writing about the deadly effects of roads on wildlife.

Natural history articles with a focus on birds were continuously published throughout the life of the *North Queensland Naturalist*. John Busst, a local Bingil Bay artist and conservationist, wrote an article reporting on the nesting of "grey swiftlets" (Australian Swiftlet, *Aerodramus terrareginae*) on Bedarra Island (Busst 1956). It was John who joined forces with Len Webb and Judith Wright to fight against the then destruction of the Great Barrier Reef through mining. He also was Chair of the Committee for Tropical Rainforest Preservation and one of the first to realize the threats to rainforest biodiversity. More recently, John has

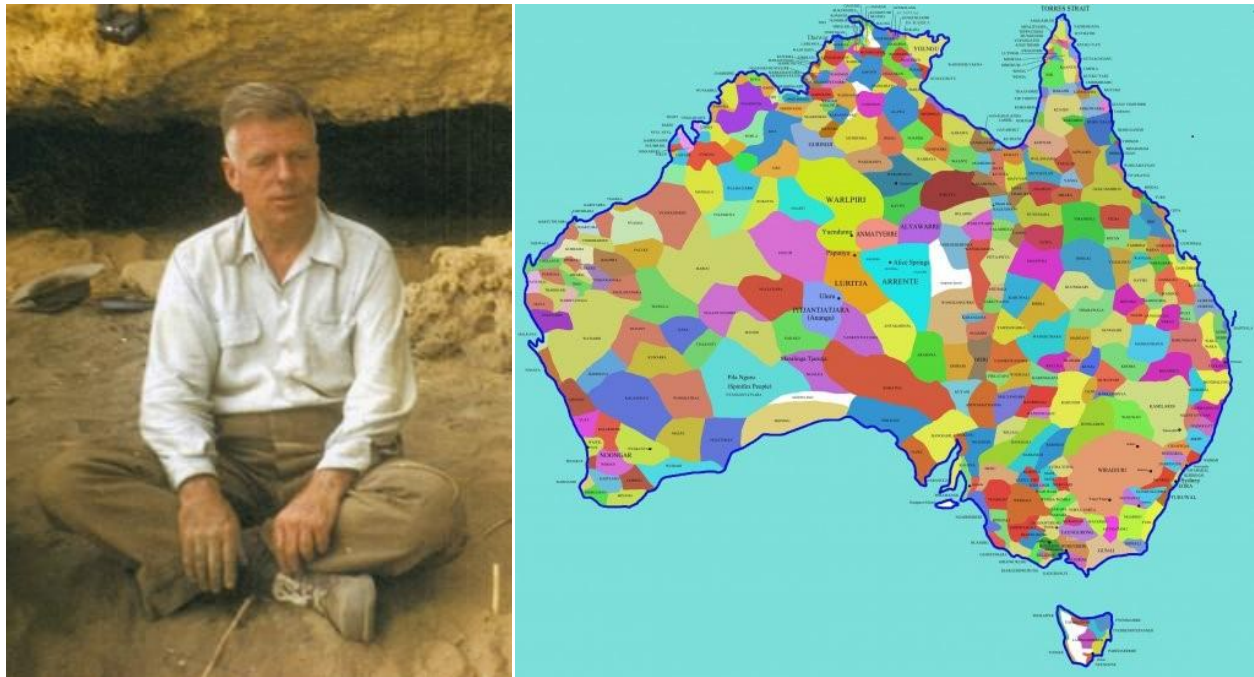


Figure 3. Norman B. Tindale in the field at Fromm's Landing, South Australia in 1956, and his much lauded map of Australian tribal territories at the continental scale.
 Photo by John Mulvaney; sourced from the South Australian Museum.

become nationally recognised for his role (Wright 1977).

Most of the bird articles consist of records of species from various locations through northern Queensland, some reflecting field trips that the Club members conducted. Many of the species that remain of research interest are included in separate articles including the Southern Cassowary (*Casuarius casuarius*), the Torresian Imperial Pigeon (Pied Imperial-Pigeon, *Ducula bicolor*), Tooth-billed Bowerbird (*Scenopoeetes dentirostris*) and Golden Bowerbird (*Amblyornis newtonianus*). There are several articles documenting the birds of the Cairns foreshore, a matter of ongoing significance and concern. Cairns birder Dawn Magarry wrote many articles for the journal during the 1980s and 1990s including observations on diet, on nesting Little Terns (*Sternula albifrons*), on Freckled Duck (*Stictonetta naevosa*) and other rare species in the area. International expert on bowerbirds and birds of paradise, Dr Cliff Frith, wrote an article on Tooth-billed Bowerbirds for the *North Queensland Naturalist* over 20 years ago, and this species remains in focus for current research about their bowers. Around the same time, Les Moore wrote on the conservation status of the Cassowary and again today this is a matter of community concern.

Reptiles, amphibians, insects, arthropods and more

A final group of vertebrate organisms that was a focus for authors is reptiles and amphibians. Understandably, some focus in the journal was on the introduced Cane Toad (*Bufo marinus*). The launch of the journal occurred in an environment unaffected by Cane Toads but almost immediately the adverse effects of this novel species on native wildlife began to emerge and the journal documents some of the rising concern. Introduced just 3 years after the *North Queensland Naturalist* began, the first reference appeared in Volume 4 (47):41 under the heading July Lecture. This was a report about the first captive breeding of the Cane Toad at the Meringa Experimental Station. At that stage there appeared to be no concern about the toad. Subsequent articles included identification of possible natural predation on toads (Water Rats *Hydromys chrysogaster*, (Eastern) Koel *Eudynamis orientalis*, crow, crayfish and others). Several papers recorded new species of frogs in the region and observations about their breeding. Greg Czechura of the Queensland Museum wrote an interesting paper on altitude displacement in two frogs (Czechura 1978). Andrew Dennis and Mike Trennery wrote about the frogs of the Mt Lewis rainforest (Dennis & Trennery 1984). Andrew

Dennis wrote a very interesting paper on captive sharp-snouted frogs (Dennis 1982). Not surprisingly, featured snakes included pythons, Brown Tree-snakes (*Boiga irregularis*) and Coastal Taipans (*Oxyuranus scutellatus*).

Insects and arthropods have featured in the *North Queensland Naturalist* from the first edition onwards. Many papers on butterflies have described new records of species and others provided details of life history for the first time. Local naturalist M.J. Manski, whose work was of national significance, wrote many papers on Lepidoptera in the 1930s. Norman C. Coleman, another local author, wrote more recently on a range of butterfly and other insects. Elizabeth Marks (better known as Pat) (Fig. 4) wrote an article on mosquitos for the journal (Marks 1946) early in her brilliant career. Dr Marks went on to become one of Australia's leading entomologists



Figure 4. Dr Elizabeth Marks (left) with insect trap, probably about the time she wrote her article in *North Queensland Naturalist*.

Dr Marks did her PhD at Cambridge and later worked for the Queensland Institute for Medical Research. Photo: Queensland University of Technology.

and a global expert on mosquitos. She described 38 new mosquito species and wrote over 100 publications. Another example of a notable author contributing to the *North Queensland Naturalist* is Ludwig Glauert (Fig. 5) who described a new species of scorpion from northern Queensland (Glauert 1954). He was that year appointed as the Director of the Western Australian Museum where he had worked as curator for many years and had published on reptiles, birds, mammals, insects, spiders, fossils and geology (his original field of research). He was an international expert on scorpions. His article in the *North Queensland Naturalist* appeared a few years before he "retired" but he continued working thereafter on natural history right up until his death. One of his most interesting achievements was finding for the first time fossil relicts of koala and thylacine in southwestern Australia.

Tom Iredale was another outstanding scholar who wrote for the journal (Fig. 6). He worked on birds and especially marine molluscs. He eventually



Figure 5. Ludwig Glauert was a curator and then the Director of the Western Australian Museum and this photo was probably taken during his tenure.

Source: National Library of Australia, Trove.



Figure 6. Tom Iredale in 1938 when he was head conchologist at the Australian Museum.

This photo was published in *The Nautilus* as part of an obituary in 1972.

became conchologist at the Australian Museum where he worked from 1924 to 1944. Iredale had previously worked in the United Kingdom and New Zealand before moving to Australia. He was to publish over 400 papers on shells, birds, books, naturalists, studies in ecology, zoogeography and the linking up of fossil molluscs with their living

relations. He named many new genera and species of animals. His paper in the *North Queensland Naturalist* (Iredale 1940) discussed conical land-snails in the genus *Hedleya*, of which one species in our rainforests is now considered Vulnerable. He never attended University but was widely admired for his scholarship and won many academic awards.

K.M. Dodd wrote an interesting article on migratory insects including the well-known Brown Awl (*Badamia exclamatoris*). The article (Dodd 1933) described a typical migratory experience where many thousands were recorded flying by on their way south. Dodd estimated populations of many millions were involved. These flights have now declined dramatically in recent times due to extensive clearing of vegetation that contained the larval food plants in central Queensland (Valentine 2004). K.M. Dodd was a daughter of Frederick P. Dodd who was well known as the Butterfly Man of Kuranda (Monteith 1991).

Geoff Monteith of the Queensland Museum wrote an article over 30 years ago on the life history of that well-known day-flying moth, the Zodiac Moth (*Alcides metaurus*; Fig. 7) (Monteith 1981). Geoff has since retired but continues active research on dung beetles. He is one of our referees for an article in the first new volume (Franklin & Wood 2016).

There are also papers on karst and cave formations and it is interesting to see that topic present in the new journal (Gillieson 2016). Other papers include ones about freshwater organisms, fish species and a spider mimic of the green tree ant (Clyne 1969).

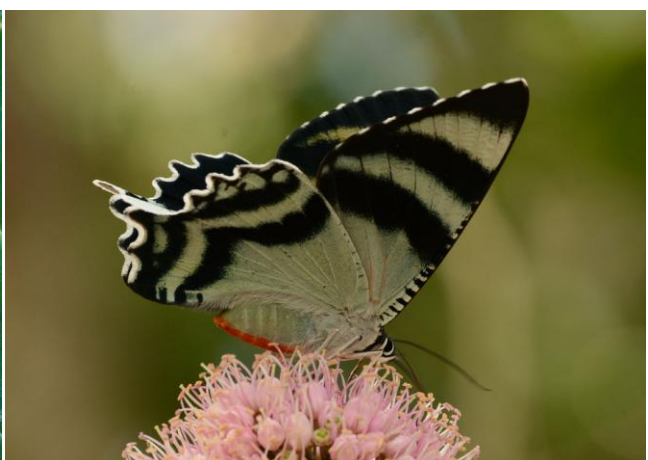


Figure 7. The Zodiac Moth, *Alcides metaurus*, whose life history was first described in the *North Queensland Naturalist*.

Left - upperside (CSIRO); right - underside (Peter Valentine).

Conclusions

In the course of my review several features of the *North Queensland Naturalist* became apparent which seem particularly worth noting. First, the large number of writers across that period; over 200 different authors wrote for the journal with several contributing multiple articles over different years. The knowledge gap identified at the start of the journal's life had been addressed by many naturalists. The second immediate feature that I noticed was the large number of nationally and internationally well-known authors, many of whom were writing in their youth but some at least were already well established in their professional careers at the time. In retrospect, the journal has been host to the work of many outstanding researchers whose influence has extended far beyond the north Queensland region. A third feature was the enormous breadth of the material covered, as indicated in part by the themes outlined above. Most papers reflect topics of regional significance and interest, as expected, but some venture into issues of wider importance and appear to make contributions beyond the local. In the index prepared by Jeremy Hodes (1997) he notes that there are 502 records included (1932-1996) with 1078 subject entries. A final point, returning to the authors, is the impressive number of local naturalists who reported on their field observations, whether as individuals or as a group forming part of the Club activities. Once again, a knowledge gap identified at the time of the journal's launch was taken up by many local naturalists. The original format of the journal (Fig. 8) was maintained until Volume 45 but subsequently the format changed and the content became more like a newsletter.

In 2016, as we relaunch the journal, it is clear that there are publication gaps remaining across many natural history fields, and the expectation remains that many naturalists will see the opportunity that the *North Queensland Naturalist* provides and submit papers about their work. It might be reasonably expected that many of these, especially younger contributors, may well become significant at both national and international levels later in their careers. But of equal interest and value will be the observations of local naturalists for whom north Queensland nature is their principal canvas. They will likely provide the backbone of the publication.

Acknowledgments

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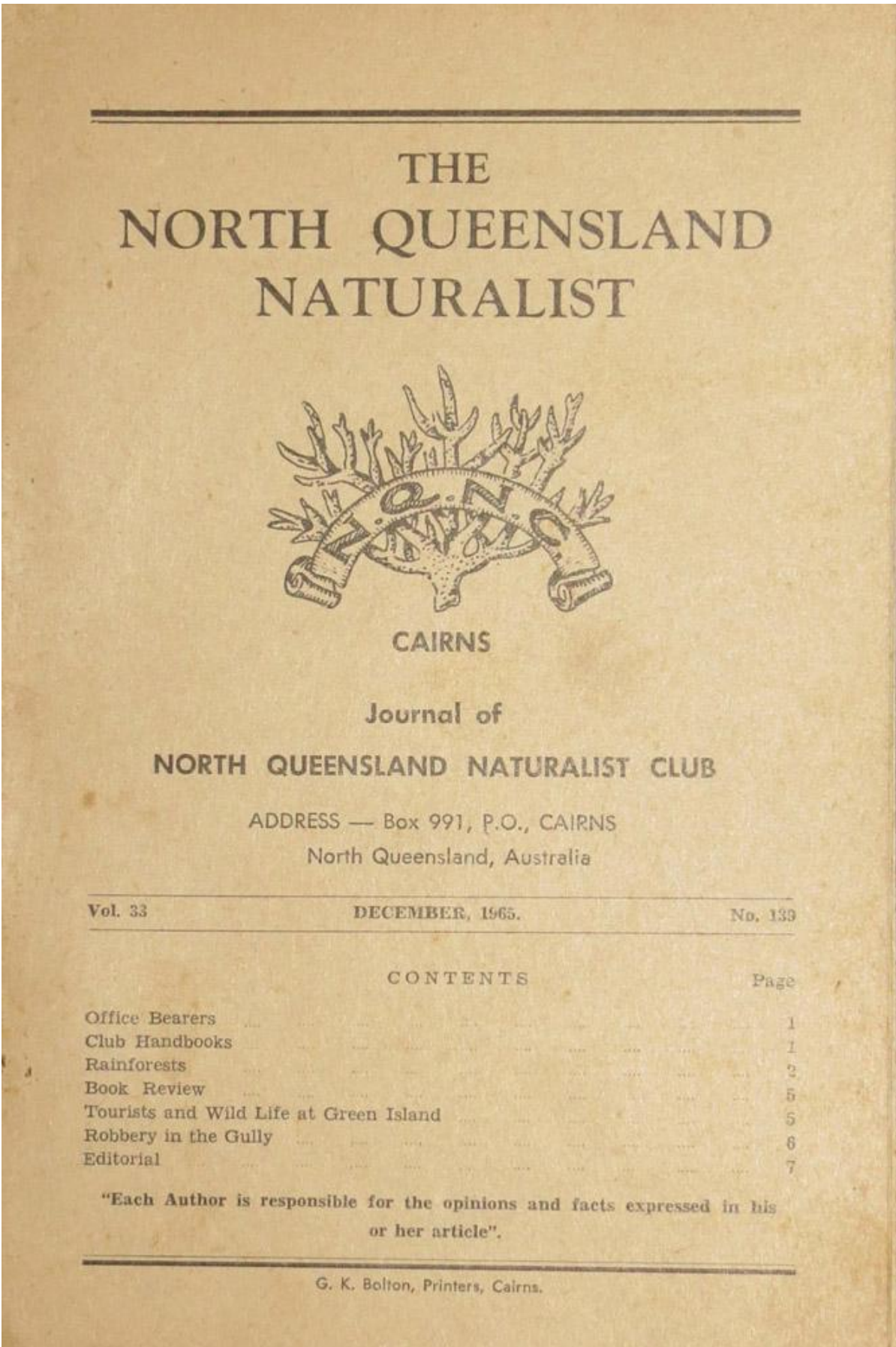


Figure 8. The original format of the *North Queensland Naturalist* from the cover of a 1965 edition.

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