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Obituary

CHARLES G. SIBLEY 1911–1998

When Charles Gald Sibley died at Easter 1998, it was for Australian ornithology something akin to the passing of a Messiah. He was a champion of its evolutionary systematics on the world stage, a pioneer of molecular technology in unravelling avian phylogeny, and the discoverer, with his co-worker Jon Ahlquist, of a marsupial-like radiation in Australia's song-birds. This was a fauna that until then had been thought of as little more than flotsam and jetsam of Old World bird families. Its endemic radiation has now been better substantiated, not so much by other molecular work as by comparative osteology, which confirms that wood-swallows are close allies of butcherbirds, as orioles are of cuckoo-shrikes and the Magpie-lark of monarch flycatchers and drongos. The morphological clues were there all the time. What was needed was a key to unlock them, and it came from the DNA-DNA hybridisation work of the Sibley-Ahlquist team in the early 1980s, at a time when the rest of molecular ornithology was still toying with protein electrophoresis and DNA sequencing was over the horizon.

Sibley was an ornithologist first and molecular biologist second. Educated in California under Alden H. Miller, he spent the war in the west Pacific theatre, writing several papers on birds of the Solomons, and then returned to the U.S. to ultimately take several plum directorships, first at the ornithological laboratory at Cornell, then at the Peabody Museum, Yale. His real career began with studies of hybridisation and its evolutionary and taxonomic implications, research which remains classical to this day. To address bigger questions about the systematics and phylogeny of the families of birds, he had turned by the early 1960s to molecular methods, first blood proteins, then the electrophoresis of egg-white proteins. In the early 1970s, he published two large treatises (passerines, non-passerines) on the relationships of the families of birds according to egg-white proteins. They are works of great value not so much for their results, which were commonly non-committal or misleading, as for their pithy analytical summaries of the history of the classification of the major lineages of birds, and the morphological traits upon which they had been based. These, together with their up-dated versions in his and Ahlquist's *Phylogeny and Classification of Birds* (1990), provide obligatory background for any serious student of evolution at the higher levels in ornithology.

By the time that he presented his egg-white review of relationships among Australian passerines at the International Ornithological Congress in Canberra in 1974, he was already beginning to shift to DNA-DNA hybridisation, a technique that, whatever its difficulties, compared the whole genomes of birds, not the fragments of a gene or its



proteinaceous expressions. The solution of higher-level relationships among birds — the Holy Grail in avian taxonomy — was, Sibley claimed, finally at hand. The trouble was that he had claimed that about each of his earlier techniques as well, so scepticism was widespread. Some of his critics seized upon some preliminary flawed DNA-DNA data from his laboratory to discredit him. Another had circulated a letter in North American ornithological circles accusing him of snake oil salesmanship.

Sibley was just the larger-than-life tall poppy to attract such antagonism. He was a forceful man in figure and mind, highly articulate, extraordinarily well organised and energetic, and dominating in personality. Yet, he carried a chip on the shoulder, borne of a perception that he came from the wrong side of the tracks to the German establishment which, personified by Ernst Mayr, led systematic ornithology through nearly all the 20th century. Abetted by his ego, it only served to focus and drive his ambition; he was a rebel with a cause. In argument he would bulldoze through, brooking no contradiction. Critics were baited with an acid tongue and, in fits of temper, he could be a cruel mimic. In short, lesser mortals were not tolerated easily and, as has been said by others, collegiate friends were few. I am glad to count myself among them. For me, his forthrightness, constancy, enthusiasm for whatever he was doing and wry sense of humour more than made up for the rest. I never found him malicious or vindictive, even against those who had tried to bring him down. Nor was he particularly sophisticated or cultured, just a big, up-front Yank possessed by 'the big picture' in avian phylogeny and convinced of the righteousness of his cause and invincibility of his intellect.

Although I had corresponded with Sibley since 1970 when I joined what is now CSIRO Wildlife and Ecology — he even funded an expedition for Ian Mason and me to collect egg-white proteins in Papua New Guinea in 1973, which gave the Australian National Wildlife Collection the most comprehensive collection of New Guinean birds' eggs in the southern hemisphere — I did not meet him until he

came to Australia for the International Ornithological Congress in 1974. He was going through a particularly rough patch then, this time brought on by legal proceedings against him for the possession of illegally taken eggs of six species of birds. There may have been some substance to several of the charges, but not the rest. One of the 'species', specified as *Torpis oocleptica*, was an obvious and probably deliberate concoction; loosely translated, it means the 'egg-stealing layabout'. Though little more than another case of attempted vilification, it still was enough for the British Ornithologists' Union to press him to resign from its membership and for Yale not to reappoint him as Director of the Peabody.

Sibley was as bemused as he was hurt by the episode. He cut himself off from American colleagues at the time while opening up to his friends overseas. Day after day, he took me aside during the Congress to go over and over what was troubling him and what he should do. I was busy building the ANWC collections at the time, because of which, and perhaps for other reasons, he knew he had a sympathetic ear dissociated from the American scene. He also had a way with words, a rare capacity to encapsulate complex ideas in a simple phrase or sentence. Two related to this episode are classic. One carries a message for those who do not understand the value of on-going strategic collecting of the still imperfectly known bird fauna of the fifth continent: *no collections, no data; no data, no knowledge*. The other is a metaphor for the skin collectors who do not keep tissues for molecular analysis: *they keep the envelope but throw away the letter*.

By the mid-1980s, the tide started to turn. Conviction and tenacity had kept him focussed on the DNA work. He had already been awarded the Brewster Medal, a high honour in New World ornithology, and, about six years after the egg-white period, the papers began to stream out, over 30 of them. They culminated in the publication of *The Tapestry*, the familial phylogeny of living birds, in the *Auk* in 1988. It was a phylogeny that had caused a considerable stir when it

was first released at the IOC at Ottawa in 1986, stretching across an entire wall of the large poster paper hall. At that Congress, Sibley was elected President of the 1990 Congress at Christchurch, New Zealand, which coincided in turn with the publication of his final monuments: *Phylogeny and Classification of Birds*, with Jon Ahlquist, and *Distribution and Taxonomy of Birds of the World*, with Burt Monroe, Jr. Laurels were finally his.

These last works will be the yardsticks of his legacy. Already his sequence of families in the *Phylogeny and Classification* and his species in the *Distribution and Taxonomy* are being taken up in many parts of the world to replace the long-established Peters–Wetmore arrangements of the early mid-20th century. With his co-workers, he catapulted the sleeping issue of higher level relationships among birds into the global systematic spotlight with a new technology that catalysed a burgeoning of other molecular technologies and research effort to test it. He had initiated a new research rage in evolutionary ornithology, and at a level yet to be reached by his peers. But not all in his scheme is necessarily right. It has been suggested that *The Tapestry* is some 80% correct overall, a high level for the phylogeny of an entire Class of animals. Yet the crucial question remains unanswered: which 80% is right and which 20% wrong? That is why the testing must continue, not only with molecular but also structural morphological and any other relevant data that has a genetic basis.

For Australia he reserved what he confided to me was his greatest discovery, its endemic radiation in song-birds. It changed forever the global context in which we see our bird fauna, its origins and adaptive radiation, and opens a raft of new palaeogeographic scenarios to explain them. In the end, Sibley's achievement has been to raise systematic and evolutionary ornithology to new planes of understanding and endeavour. I salute him with the words he used so often to end his letters to me, 'goodonya, mate'.

Richard Schodde