

IN MEMORY OF S.W. ARNELL, HEPATOLOGIST (1895–1970)

Sigfrid Wilhelm Arnell (Figure 4) was born in Gävle, Sweden on the 5th March 1895. He studied medicine, first in Uppsala and later in Stockholm, where in 1922, he obtained the 'medicine licentiat', a Swedish degree which permitted him to practice medicine. His main interest in medicine was in the rapidly developing field of X-ray diagnostics and most of his medical career was devoted to heading the X-ray department of the hospital in his native city. In 1959 he publicly defended his thesis for the degree of doctor of medicine and received this degree in the same year in Stockholm.

It was only at the relatively late age of 45, that Arnell really became interested in liverworts and began to work with this group of plants consistently, inasmuch as his free time permitted. Originally, he studied Fennoscandian hepatics (Arnell 1956), but later he became very interested in the hepatics of the southern hemisphere, and in particular, those of South Africa. For his contributions to hepaticology, the degree 'doctor honoris causa' was conferred on him in Uppsala in 1958. Hässel de Menéndez (1976), the eminent Argentinian hepaticologist, remarked that Arnell's

(1963a) *Hepaticae of South Africa* was a useful start to the study of the liverworts of that part of the world. She conceded, however, that very much more work remained to be done there.

Because Arnell's name and particulars were unfortunately left out in Gunn & Codd's (1981) *Botanical exploration of southern Africa*, the second author had tried over the years to procure some information about him, and was later informed that an obituary (freely referred to in the above paragraphs), as well as a list of his hepaticological publications, were published by Olle Mårtensson in 1972.

As it will be the 30th anniversary of Arnell's death on 26 October 2000, it seems fitting to pay tribute to his botanical efforts in southern Africa, which he visited in 1951 and which culminated in many papers and the above-mentioned book. Without Arnell's input, which was done in his spare time and at his own expense, there would have been little to build on for any South African hepaticologist who followed him. His work has been criticized, sometimes quite severely, but one should also bear in mind that, as a medical doctor, he well knew what

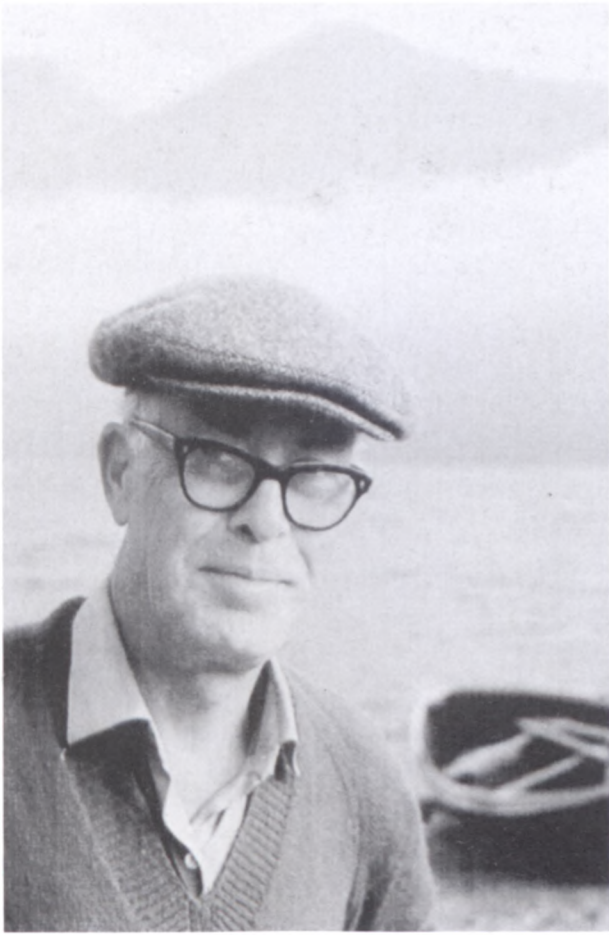


FIGURE 4.—Sigfrid Arnell beside Lake Mavasjaure, northern Sweden in the summer of 1960.

the prognosis for his Parkinson's disease would be, and how limited his time was. Furthermore, his eyesight was also failing. Apparently, after 1965 he became 'so disabled that he was no longer able to deal with scientific work' (Mårtensson 1972).

A friend of Arnell's, Mr Gillis Een, writes the following personal recollections about him, in dedication to his memory:

Sigfrid Arnell was a second generation bryologist. His father, Hampus Wilhelm Arnell 1848–1932, was a professional botanist and teacher, whereas Sigfrid was a medical doctor and an amateur botanist. He had inherited from his father not only his interest in hepaticology, but also an old microscope that he had used all his life. I remember seeing it in his study—an old-fashioned monocular brass model.

The first time I met Sigfrid Arnell was very special. It was in the summer of 1954 and I was botanising in Abisko with Herman Persson and William Steere. Early one fine morning, Sigfrid and Olle Mårtensson turned up outside our hotel. They had been hiking all night in order to climb Mount Nissontjärro during the cool hours, which is a very sensible thing to do so far north of the Arctic Circle, where the sun never sets in the summer. They had been looking for *Scapania kaurinii* Ryan (S: B25018), an arctic-alpine species, and they had found plenty of it, as well as *Scapania spitsbergensis* (Lindb.)

Müll.Frib. (S: B25019). Sigfrid gave me samples of both, which for many years were very cherished items in my private collection of bryophytes. The day before, I had collected *Arnellia fennica* (Gottsche) Lindb. (S: B25020) below the hotel, belonging to a genus that was named after Sigfrid's father.

When Sigfrid retired from the medical profession in 1960 at the age of 65, he moved from Gävle to Bromma, a suburb of Stockholm, and we became neighbours within a few blocks of each other. His retirement gave Sigfrid an opportunity to spend more time on bryology. We met rather often to discuss Scandinavian hepatics, and gradually we began to make plans for two collecting journeys, one towards the Arctic Circle and one towards the Tropic of Cancer.

He was still very fit and in the summer of 1960 we organised a collecting trip to northern Sweden, more precisely, to Lake Mavasjaure in Arjeplog parish in Pite Lappmark. In preparation for the journey, we pitched Sigfrid's old tent on the lawn of the garden of the Arnell house, which attracted some attention, but we found that it could still be used. Sigfrid's wife called us boy scouts who had never grown up!

Our luggage was on the heavy side and we were not interested in long hikes. For those reasons we hired a taxi aeroplane, which landed on the lake itself, where we hired a small rowing boat in the summer camp of the reindeer herdsman. Air taxi-ing was rather unusual in Sweden at that time, but brought us into an area where few botanists had been before.

Sigfrid was extremely active in the field and was always clean-shaven, even in the rather primitive camping conditions. He insisted on doing the rowing while I did the bailing. He waded through the bogs and climbed the mountains. He wore glasses with two pairs of lenses—one pair could be flipped up or down in order to change the focal distance. His collecting was rather discriminating and he carefully avoided all the common species.

It so happened that 1960 was a lemming year in the Scandinavian mountains. These small rodents were everywhere. When we met them on a reindeer path, coming in the opposite direction, they sat down on their behinds and barked at us, obviously expecting us to leave the path free for them. Sigfrid, who had a kind heart, had problems every time we pitched our tents, because he did not want to harm them or block their way. The lemmings began to migrate and in so doing, they attempted to swim across the lake. Thousands of them died in the cold water and were washed ashore, where their small bodies formed long ridges.

Sigfrid was incredibly even-tempered. I remember a rainy day in Pite Lappmark. Sigfrid's old-fashioned, tall tent was used as a kitchen in bad weather. That particular day, I managed to turn over both the little spirit stove and the kettle with boiling tea-water. The tent became very damp and unpleasant. He did not say one harsh word to me, neither then, nor the next morning, when we had sunshine and could dry out his tent.

Sigfrid never boasted, but he was certainly very proud of his achievements. I remember when we wrote our names in the guest book of the same summer camp at Mavasjaure. He wrote after his name 'Dr. med. and Dr. phil. hon. c.' I do not know whether the reindeer herds-men, who managed the camp, were impressed or not, but other visiting Swedes probably were.

In December 1961 we took a chartered flight to Egypt. For the first two weeks we were sightseeing, accompanied by very competent guides, one of whom was our botanical host in Cairo, Prof. Vivi Täckholm. She led us around the historical museum, where she told us about all the plants that were put in the graves with the Pharaohs' embalmed bodies, their scientific names and what they signified. She also took us to the herb market, where she told us what kind of food the spices were used in, and what herb to buy if one wanted to poison one's neighbours!

Sigfrid had a very broad education and many interests. He enjoyed every part of the sightseeing tour and was good company. He was particularly interested in textiles and one of his hobbies was that of knotting mats which are known as rya rugs.

Vivi organised all our field trips during the weeks that followed. She was a remarkable woman in many ways—she came to Cairo as the wife of a Swedish professor of botany. When he died rather young, she simply took over the job and made it an incredible success. She published a *Flora of Egypt*, and also made friends everywhere. Sometimes she joined us, together with some of her students, many of whom were women, unusual for that time.

Our visit to Egypt took place only a few years before the completion of the big dam in Aswan. The Nile still had its yearly pulse and in December the water level was retreating. The mud-banks were drying up and cracking. I have vivid memories of Sigfrid sliding in mud, looking for *Riccias*. He found many species of that particular genus, such as *Riccia frostii* Austin (S: B24340). I took photographs of the beautiful patterns they sometimes formed on the mud, slides which are now deposited in NRM/KBO (K00547, K00548, K00549 & K00550). This is just another bryophyte habitat that has been completely destroyed in our lifetime. Sigfrid published some of his findings a few years later (Arnell 1963b).

In 1962 I was professionally engaged in the technical development of certain processes in the cane sugar industry. I made a long journey that brought me to Natal in South Africa, to Mauritius and Réunion in the Mascarenes and to Queensland and NSW in Australia. I collected as many bryophytes as I could on weekends and in my spare time. At that time Sigfrid had almost finished his *Hepaticae of South Africa*, which was published the next year. Before I left for South Africa, he and Herman Persson impressed upon me, that for a very long period of time, no bryologist had visited the Mascarenes, so I decided to take a week off from my

work, in order to do some more serious collecting on the two main islands.

I always sent my extra Scandinavian collections to Herman Persson at NRM in Stockholm as it saved me a lot of trouble with customs. This time, Sigfrid took possession of the collection as soon as it arrived, extracted all the hepatics and started to identify them. The result was a publication (Arnell 1965) which was to be his last.

What I did not know then, but learned much later, was that Sigfrid's eyesight was failing him very rapidly. That may explain why he was so eager to finish the work while he still could, and also why many hepaticologists, who at later dates have studied my samples, have disagreed with some of his determinations.

Sigfrid also studied my collections from Queensland, resulting in the description of two new species (Arnell 1963c). The type specimens were deposited in the herbarium of Uppsala University. For many years they could not be found there. The explanation is probably that Sigfrid moved to Uppsala, where he died in 1970, and his private herbarium was donated to the University, where it was kept apart. It was only recently that Lars Söderström was able to locate the two type specimens.

This is how I remember Sigfrid Arnell. Dates and other details may be slightly inaccurate, but I have tried to paint a true picture of a very dear friend.

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