Johann Hedwig (1730 – 1799)

Johann Hedwig was born in Kronstadt (now Braşov), Transylvania (now Romania), in December 1730, the son of Jakob Hedwig, a town councillor and probably a wine merchant, and Agnes Galles. He was taught locally, and after the death of his father in 1747 attended schools in Pressburg (now Bratislava, Czechoslavakia) and Zittau, Germany. Entering the University of Leipzig in 1752, he received his bachelor's degree in 1756 and doctor of medicine in 1759. His character and ability impressed his tutors and without the help of the professor of botany E G Bose, who offered him lodgings and employment for three years as his hospital assistant, Hedwig may not have been able to afford to complete his studies. Disappointed to learn that a medical degree from the University of Vienna was required to practise medicine in his hometown, he settled in Chemnix, Saxony, after marrying Sophie Teller, the daughter of Romanus Teller, professor of theology and minister of the Thomaskirche in Leipzig.

As well as his busy and successful practice Hedwig continued his study of plants, which had been a passion since childhood. Beginning at dawn, he often spent several hours botanising in the country before visiting his patients and then examined his collections at the end of the day. His increasing interest in the mosses and liverworts was hindered by a lack of books and equipment until the German naturalist J C D Schreber, himself an important contributor to the knowledge of mosses, provided him with books, and the inspector of mathematical instruments at Dresden, J G Köhler, gave him a microscope that Hedwig, by successive refinements, was able to use at up to 290x magnification. He became skilled in both microscopy and biological illustration.

The death of Hedwig's wife in 1776 and the subsequent care of his six surviving children were temporary interruptions to his botanical work. In 1778 he married again, and his second wife Clara Benedicta Sulzberger of Leipzig promoted both his scientific career and personal wellbeing. She bore him six more children, but five died in early childhood and one at the age of sixteen. In 1781 at her suggestion, they moved to Leipzig where he continued to practise medicine. The following year he published his *Fundamentum Histoire Naturalis Muscorum Frondosorum,* in two volumes, the first of his works to be internationally recognised.

He was given charge of the military hospital at Leipzig in 1784, and in 1791 became medical officer of the Thomasschule. In 1786 he was appointed a professor at the university, first in medicine, and in 1789 in botany, with directorship of the botanical garden and an apartment in the academy building. Although ineligible for a university chair because he lacked the regulatory MA degree, the intervention of Friedrich August I, Elector of Saxony, also a keen botanist, assured the appointment. Hedwig's fame spread both at home and abroad. In 1783 he won a prize from the Russian Academy of Sciences for his work on the reproduction of cryptogamic plants, and his thesis was published in St Petersburg the following year. He was elected a member of several prestigious organisations, including the Royal Society of London in 1788. After visiting his patients during an exceptionally cold winter, he became ill and died a few days later, on 7 February 1799.

Johann Hedwig named many moss genera. He is commemorated in the moss genus *Hedwigia,* the family Hedwigaceae, the journal *Hedwigia* and its successor *Nova Hedwigia*.

Hedwigia ciliata

Hedwigia is a moss genus of both northern and southern temperate regions, with more than 37 species and sub-species described. Found worldwide, including New Zealand, the more or less erect stems of *Hedwigia ciliata* form loose mats to at least 300 mm diameter on dry rock in the open. When dry, the shoots have a rather silvery rope-like appearance. The perichaetial bracts (the leaves surrounding the capsules) bear long, twisted hairs at their tips, hence the name 'ciliata'. The small globose capsules, with a bright orange ring around the mouth, are immersed among the bracts. The species occurs from near sea level to 1,200 m, but is not known from the wetter parts of the main islands.

PHOTO: J C Schou