

Book Reviews

Johan Havaas, fjellbonde og vitenskapsmann. Manfaldig Botanikar med Internasjonalt Ry [Johan Havaas, mountain farmer and scientist. Multifarious botanist of international fame.]. Edited by Sevrin Kjerland and Hans S. Haugse. March 2005. Granvin, Norway: Granvin Folkemuseum. Pp. 206, with c. 300 figures, 41 in colour and 1 map. ISBN 82-303-0396-7. Hardback, with integral full colour cover, and map endpapers. Obtainable from: Sevrin Kjerland, N-5736 GRANVIN, Norway. Price: N. Kr. 395 [€50]. doi:10.1017/S0024282905210058

This beautiful book is a worthy tribute to the Norwegian lichenologist/botanist Johan Havaas (1864–1956), who, at the present time, is not as widely known outside of his native country, as he deserves to be. This was not always the case as a perusal of this lovingly prepared and imaginatively produced biography amply shows. Indeed, the book is a wonderful voyage of discovery, of a personality, of a region and of another and now distant time, for any modern lichenologist to make.

Johan Havaas was born on 19 October 1864, the fourth of a family of six children who grew up on a farmstead (Havaas) near Granvin on the upper reaches of the Hardangerfjord, a romantic landscape of forested mountainsides, small farmstead clearings, lakes and streams, mountain summits, rock outcrops and crags, remote from the resources of a town or city. This landscape was to be his home for the duration of his long life (he died on 27 April 1956 and was buried in Granvin churchyard on 4 May 1956), and it was to the plant cover of this landscape, and especially to its lichens, that he devoted what leisure hours he had left over from the demands of farming. For Havaas, it was a long and difficult battle to wrest a living from the poor soil of a small mountain farm, and as an amateur lichenologist he was denied the resources (financial and otherwise) of a supporting institution from which to anchor his botanical activities. As Knut Faegri (who knew Havaas) wrote in the introduction to Havaas's posthumously published "Granvins Lovmosflora" (Havaas 1962), which is reproduced at the end of this book "... That Johan Havaas was able to, under these circumstances, to teach himself not only the basic facts of cryptogamic botany, but also the foreign languages he needed for his studies, is an almost unbelievable achievement. It is with bitterness one contemplates the wasted abilities, and sadly hopes that today's society has provided possibilities for scientific talent to express itself under better circumstances. On the other hand, due to the inevitable restrictions on his work, Havaas concentrated on a very small area, which he studied year after year, at all seasons. There is hardly any part of the world of similar size, the cryptogamic flora of which has been studied as intensively as the western part of Granvin, and Havaas's three papers, the earlier ones on hepatics

and on lichens, and the present one on mosses, together represent an unsurpassed fund of knowledge of a small district." Havaas recorded c. 310 lichen species from the island of Mosterhavn (Havaas 1920), and c. 370 species from the peninsula of Stadlandet (Havås 1935), very high numbers from small areas in western Norway, which may be compared with the 668 lichen species later recorded from the island of Vega by Gunnar Degelius (Degelius 1982) another very high number of recorded species from a small and rather barren island in western Norway.

In the present book's broadly biographical treatment, Havaas's lichen work is discussed in two separate chapters. Firstly, Per Magnus Jørgensen outlines Havaas's life in lichenology, showing how dependent he was on the availability of books and on letters of encouragement and assistance from established lichenologists. Towards the end of the 19th century, Havaas established contact with the Bergen Museum. In 1896 he received his first grant from the Museum for botanical explorations in western Norway, and he maintained contact with the Museum and its successor, the Botanical Museum of the University of Bergen, for the succeeding 60 years. At the suggestion of Aksel Blytt, Professor of Botany at Christiania [Oslo], Havaas was encouraged to write to T. M. Fries in Uppsala, to William Nylander in Paris (Havaas's letter to Nylander of 23 June 1897, is reproduced on p. 57) as well as to Norman, Norrlin and Wainio. Although Nylander did not feel able to identify Havaas's lichen collection, he invited Havaas to visit him in Paris for some instruction in lichenology (Per Magnus Jørgensen, pers. comm.). Havaas, once started seriously on lichens, soon began collecting material for an exsiccatum (he had a good eye for lichens, as Tor Tønberg presciently records). Indeed, it is through his two published exsiccata that he is probably most widely known in lichenology. His first, "*Lichens Exsiccati Norvegiae, a Museo Bergensi Editi*", comprised 23 fascicles and 725 numbers, and was published between 1901 and 1952 (Sayre 1969: 131–132), and his second, "*Lichenes Norvegiae Occidentalis Exsiccati, a Museo Bergense Editi*", comprised 12 fascicles and 300 numbers, being published between 1912 and 1954 (Sayre 1969: 132–133). Besides these exsiccata, Havaas published 12 papers, half of them on

lichens. These published works gained him an international reputation, and Scandinavian lichenologists such as Lynge, Degelius and Magnusson made calls to see him and undertook field excursions in his company. The extent of Havaas's lichen work, is comprehensively discussed in an extremely well-illustrated chapter by Tor Tønsberg, including details of names introduced by Havaas, papers published by him and lichens named in his honour. And there are reproductions of letters to Havaas from Alexander Zahlbruckner, Matilda Knowles, Bernt Lynge, A. H. Magnusson, George Llano, and several from Bill Culberson (1963–1964, regarding the sale of Havaas's lichen collection to Duke University). A particularly warm letter from Asahina is worth recording here, "... Prof. Faegri in Bergen kindly informed me of the celebration of your 90th birthday on October 19 this year. On this occasion I should like to send you my heartily [*sic.*] congratulation to the celebration. Though personally unknown, I possess in my humble herbarium a part of your valuable *Lichenes Norvegiae occidentalis exsiccatae*, by which I could solve many problems concerning Japanese lichen taxonomy. Wishing you lasting health and farther activities ..."

As a personal aside, the name of Johan Havaas was earlier known to me only through the work of Degelius (1935) and Almborn (1948) in discussions of oceanic taxa that have outliers of their distributions in the Southern Hemisphere. The bipolar taxon known today as *Pseudocyphellaria norvegica* (Coppins & James 1979; Galloway 1992; Santesson 1993; Tønsberg *et al.* 1996; Santesson *et al.* 2004) is a rather rare lichen known from the western British Isles, western Norway, Madeira, the Azores and it occurs also in Chile. It was described as *Cyanistictia norvegica* by Gyelnik from material collected by Johan Havaas in Norway in 1910, and Havaas also collected the material on which two further names (both synonyms of *Pseudocyphellaria norvegica*) were based; *Stictina thoursii* var. *ecyphellata* Havaas, and *Sticta thoursii* f. *aberrans* Havaas ex Lynge.

Although this well-illustrated biography of Havaas is written mainly in Norwegian, I feel that this is not a serious drawback to the understanding and appreciation of an exemplary study of a remarkable life in which lichenology played such an important part. In many

ways this tribute to Johan Havaas sets a standard and is a model to which many other biographical studies on notable lichenologists might aspire. It is a very fine achievement and certainly deserves space on any serious lichenologist's bookshelf. Very warmly recommended!

David Galloway

REFERENCES

- Almborn, O. (1948) Distribution and ecology of some South Scandinavian lichens. *Botaniska Notiser Supplement 1* (2): 1–254.
- Coppins, B. J. & James, P. W. (1979) New or interesting British Lichens IV. *Lichenologist* **11**: 139–179.
- Degelius, G. (1935) Das ozeanische Element der Strauch- und Laubflechtenflora von Skandinavien. *Acta Phytogeographica Suecica* **7**: 1–411.
- Degelius, G. (1982) The lichen flora of the island of Vega in Nordland, northern Norway. *Acta Regiae Societatis Scientiarum et Litterarum Gothoburgensis. Botanica* **2**: 1–127.
- Galloway, D. J. (1992) Studies in *Pseudocyphellaria* (lichens) III. The South American species. *Bibliotheca Lichenologica* **46**: 1–275.
- Havaas, J. (1920) Lichenvegetationen ved Møsterhavn. *Bergens Museums Aarbok 1917–1918. 1. Hefte. Naturvidenskabelig Række* **2**: 1–39.
- Havås, J. (1935) Om lichenvegetasjonen på Stadlandet. *Bergens Museums Aarbok 1935. Naturvidenskabelig Række* **2**: 1–43.
- Santesson, R. (1993) *The Lichens and Lichenicolous Fungi of Sweden and Norway*. Lund: SBT-förlaget.
- Santesson, R., Moberg, R., Nordin, A., Tønsberg, T. & Vitikainen, O. (2004). *Lichen-forming and lichenicolous fungi of Fennoscandia*. Uppsala: Museum of Evolution, Uppsala University.
- Sayre, G. (1969) Cryptogamae Exsiccatae—an annotated bibliography of published Exsiccatae of Algae, Lichenes, Hepatics, and Musci. *Memoirs of the New York Botanical Garden* **19** (1): 1–174.
- Tønsberg, T., Gauslaa, Y., Haugan, R., Holien, H. & Timdal, E. (1966) The threatened macrolichens of Norway—1995. *Sommerfeltia* **23**: 1–258.

***A Field Key to Common Churchyard Lichens.* By Frank S. Dobson.** 2003. New Malden, Surrey: Frank S. Dobson. Pp. 38, plus 4 pages of photographs and numerous line drawings. ISBN 0 9542324 2 9. Soft back, with spiral binding. Price: £5.50 for BLS members or £6.50 for non-members (add for both £1.50 post and packing). Obtainable from the author, 57 Acacia Grove, New Malden, Surrey, KT3 3BU.
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No one should be surprised at the recent interest in the lichens growing within our churchyards and cemeteries. These sites are often extraordinary lichen habitats; in an area perhaps less than an acre in extent the physical variations in temperature, humidity and light intensity may be considerable, and the stone surfaces of the memorials and of the church itself often present a wide spectrum of textures and pH. Add to these influences perhaps the presence of ancient trees offering ecological continuity, the effects of competition between species,

and the recent colonization of our urban heartlands resulting from the dramatic improvement in the atmospheric conditions, then inevitably, good churchyards and cemeteries will support a rich and diverse lichen flora. Burial grounds also have the additional advantages of being close at hand—present even in the middle of cities—require no formal permission for entry, and the health and safety issues that are blighting many aspects of field biology are less of an issue. All these points explain the present surge in interest in burial

grounds as areas of lichenological study, particularly from students in further education and for those at university. It is inevitable then that a guide to the naming of churchyard lichens would be published to fill this area of need. The late Tom Chester, chair of the BLS Churchyard Sub-Committee, wrestled with ideas for some years but his untimely death prevented any publication. The BLS itself produces an inexpensive and excellent series of five coloured identification sheets to churchyard lichens (unfortunately not mentioned in the bibliography within this book) that are always in demand. This present publication then, written by that remarkable popularist of lichenology Frank S. Dobson, is not only welcome but is long overdue.

The book is directed towards a wide spectrum of expertise, from the interested beginner to those for whom a study of lichens has become more than a passing interest. It offers not only a key to common churchyard lichens but also a concise and clear guide to the main aspects of lichen morphology and physiology. For the beginner there is a series of photographs to use as a simple means of comparison with the field specimen. These photographs are on the whole excellent and testify to the enviable ability of the author to capture images of lichens that summarize their considerable range of growth forms found even within a single species. They are grouped according to morphology—crustose, leprose, foliose etc.—and the beginner should have little difficulty in matching the specimen found in the field with the image. The exception is perhaps the photograph of *Lecidella stigmatea* in which the fruits have lost the “sharpness” that they exhibit in reality and the colour of the thallus is obscured by the presence of another species of yellow colouration. The photograph labelled as *Lecanora dispersa* is probably *L. floroviana*, a species that was not fully understood at the date of this publication. This error in itself testifies to the rapidly advancing knowledge about the taxonomy of lichens, perhaps in part, catalysed by the effect of this and other recent aids to their identification. The beginner, after making a tentative photographic identification, is encouraged to check the visual features of the specimen against a “table of characters”. This activity presents an intermediate level of difficulty and is a clever way of encouraging the newcomer into the final progression—one often avoided by the novice as being too difficult—that of trying the key itself.

The lichen key is presented as a series of sub-keys—“lichens growing on moss or soil”, “lichens growing on sawn wood” etc. These sub-keys work well; the phraseology is simple and clear, and the marginal vignettes

that clarify key morphological characters are excellent. But then this is not a key that has been rushed into print; many beginners and improvers have trialed it during field-study courses run by the author. More experienced lichenologists who specialize in churchyard surveys have also used it and offered advice. I do have one small criticism; there are references to relevant photographs present in other publications. These appear as “pol2”, “rs4” etc. after a number of couplets in the key; I found these distracting, they could have been added, with perhaps less confusion, to the table of taxa that is presented prior to the main key. This is a minor criticism, however, when set against the overall highly informative and beautifully produced nature of the publication. In addition the many complimentary remarks that I have gleaned from those who regularly used this key speak volumes for its overall appeal and usability. The glossary is reassuringly short, but adequate, and is positioned where it needs to be—at the beginning of the table of characters and the key. The book is of convenient size to be used in the field, has a fairly robust cover that should last well, and the spiral binding permits it to be folded back and the relevant page to be displayed in one hand whilst using a hand-lens in the other. There are a number of typographical errors but these are minimal. The review copy of the book had changes to the “table of characters” as printed in my personal copy purchased when the book was first published. Errors to this section have been corrected and additional space found for the inclusion of leprose species—a considerable improvement. There is no indication that this is in fact a second corrected edition so people who have purchased an earlier copy should check the contents and perhaps add a photocopy of the corrections.

The “Key to Common Churchyard Lichens” is a lovely book, well illustrated, clearly printed, and written to a high standard. It is the product of a considerable amount of effort on the author’s part and it is doubtful if any of the information inside the covers could have been presented in a better way. At the price that it is offered it should find a space on the bookshelves of anyone interested in lichens and will be a valuable source of reference for biology departments in schools and universities. I have little doubt that it will remain a classic well into the future and will stimulate interest in these fascinating organisms that add so much beauty and charm to our burial grounds.

Ivan Pedley

Lichens: an Illustrated Guide to the British and Irish Species. By Frank Dobson. Fifth Edition. Slough: Richmond Publishing Co Ltd. Pp. 480 with numerous keys, colour illustrations, thumbnail drawings and distribution maps. ISBN 0 85546 095 4 hardback; ISBN 0 85546 096 2 paperback. Price: £45.00 hardback; £35.00 paperback.
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This new edition of this excellent and popular guide to British lichens will be most welcome to those who have found previous editions (1979, 1981, 1992 and 2000)

useful. It contains a further 130 species not found in previous editions and there are many name changes including those in the latest checklist (Coppins 2002) as

well as more recent changes. There are numerous new photos, some additions and some better ones replacing previous ones.

For those less familiar with the previous editions, this book is remarkable in its coverage, including about half the British species, with keys, descriptions, photographs and distribution maps. Printed on paper that does not stick together if it gets damp in the field, Frank Dobson's book is used universally by all British, and I suspect many non-British, lichenologists. The text is clear, the descriptions easy to follow and there are many little thumbnail drawings illustrating microscopic features. The standard of photography is excellent, aided by modern digital photography and the author's well-known photographic skills. It is not a replacement for the standard flora published in 1992 (a new edition of which is currently in preparation) but for many it is much more user-friendly.

The author has taken great pains to make corrections to earlier editions especially taking into account those users who have feedback to him, errors, omissions or difficulties in use. There will inevitably be, for a book packed with so much information, some minor recalcitrant errors (perhaps in reference to the less common species for example in the description for *Verrucaria caerulea* "Spores globose, 14–20 × 47 µm." Should read "Spores 14–20 × 4–7 µm."—the perithecia being glo-

bose) but these do not detract from the enormous value of this book. Personally, I would like to have seen in the "Introduction" mention of the usefulness of hand held Geographical Positioning Systems (e.g. those made by Garmin e.g. GPS12CX) because they are not expensive and the value of a record of a species depends on its accurate location. Also, when examining lichens with a microscope, the advantages of cutting sections with a razor blade by hand—albeit you need a steady one—could be emphasized. Such sections are so helpful in seeing thallus structures such as cortical cell types and the structure of ascocarps although the number of species in the book for which this is a "must do" is relatively small.

In summary, for those who have not yet got this book, it is very strongly recommended and is a "must buy". For those who have an earlier edition, do get up to date with this one. Name changes don't usually go away and the sooner we start using them the better and think of the 130 species not in the previous edition!

D. J. Hill

REFERENCE

- Coppins B. J. (2002) *Checklist of British and Irish Lichens*. London: British Lichen Society.