

*The following series of 'riverine' books has been produced by the distinguished Cambridge botanist Dr. Sylvia Haslam and professional artist and desktop publisher Tina Bone. They are both members of the Cam Valley Forum, Sylvia for Life.*

**RIVER FRIEND BOOKS: A SERIES OF RIVERINE BOOKS by Sylvia M Haslam and Tina Bone, pub. by Tina Bone UK (<http://riverfriend.tinasfineart.uk>). Paperback £7.50 each.**

**A Prologue to the Series: Plant Identification and Glossary of Terms, 2019, 56pp. (ISBN 978 1 9162096 2 6)**

**Book 1 Drying Up, 2018, 39pp. (ISBN 978 1 9162096 1 9)**

**Book 2 Stream Story 1: A Riveting Riverscape – River Brue, Somerset, 2018, 47pp. (ISBN 978 1 9162096 0 2)**

**Book 3 A Prologue to the Series (ISBN 978 1 9162096 2 6)**

**Book 4 Interpret: What do Plants tell us? 2020, 58pp. (ISBN 978 1 9162096 5 7)**

**Book 5 Reed - On the Edge (ISBN 978 1 9162096 4 0)**

**Book 6 An Introduction to the Water Framework Directive (ISBN 978 1 9162096 3 3)**

**Book 7 WATER – Clean and Dirty (ISBN 978 1 9162096 7 1)**

**Book 8 Vegetation Changes Over Time (ISBN 978 1 9162096 6 4)**

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See <https://riverfriend.tinasfineart.uk/>

### **Review by committee member CT**

Rivers are one of the most significant features of the natural landscape, but also of vital importance to human societies. Whereas the general public has long been aware of the wholesale changes wrought by human activities on most terrestrial environments, and the needs for monitoring, balance and conservation to maintain a healthy and sustainable pattern of urban and rural development, it is only recently that the declining state of rivers – contrasting episodes of low flow and flash floods, water pollution and invasive plants and animals – has fully begun to attract the public attention it deserves. For example, proceeding upstream in a punt on the River Cam from Cambridge to Grantchester, past willows, green meadows and grazing cattle, can give a totally false impression that all is well with that world.

In order to bring a detailed understanding of the nature and problems of stream and rivers to a wider audience, Sylvia Haslam, doyenne of ecological studies of river environments and their vegetation, and author of a number of groundbreaking books on these topics, has teamed up with artist Tina Bone to produce a series of small A5 books that address individual topics or case studies.

These concentrate on the vegetation of ditches, streams and rivers, as the essential indicators of their ecology and health. Six of these books have now been published, and the first four of these are introduced below. A peculiarity of the series is that the numbering of the volumes, does not follow the natural order in which they should be read and studied.

Despite their small format, these books are in no way designed for children, although a keen teenager with a hunger for natural history in the field could find much to learn from them. These books aim to produce a serious but accessible course in river management, not just for the keen naturalist, but also for the conservation volunteer, the farmer with watercourses on his land and even the professional land manager.

The approach is very different from that of the popular, natural history books of Collins New Naturalist Series or Bloomsbury's British Wildlife Collection, which does include a volume on 'Rivers' by Paul Raven and Nigel Holmes. The emphasis here is on inspiring and encouraging people to go out specifically to study streams and rivers, to learn to identify aquatic plants and recognise them as indicators of different environments, vegetational communities and water conditions, also to recognise changes and threats to their local rivers and the appearance of introduced or invasive species, or even detect protected freshwater plants.

The first book (though paradoxically listed as **Book 3**) is titled '**A Prologue to the Series: Plant Identification and Glossary of Terms**'. Throughout the series plants are generally referred to by their scientific names, so initially the Linnaean system of binomial nomenclature is introduced and described, followed by a listing of common or ecological aquatic plant species, giving both their scientific and English names.

There is a key, with illustrations of relevant features, to the commoner aquatic species of lowland rivers, followed by eight pages of delicate line-drawings by Tina Bone, illustrating plants tolerant and semi-tolerant to Sewage Treatment Works and similar effluents – conditions that, alas, increasingly dominate our rivers, then of fringing herbs, lining the edges of streams and the taller monocotyledons, including reed grasses, bulrushes and sedges, with a discussion of the natural and humanly induced factors that influence the occurrence of the latter. Lists of freshwater plants, protected by British law and of those that have been introduced into the British Isles (noting those species causing concern) are given.

Next follows an extensive glossary of a range of terms used in the different books of the series. The volume concludes with seventeen pages of further line-drawings, a Picture Guide to some Common British Aquatic Plants, this time listed alphabetically by their English names, and four pages of 'Selective (but very full and varied) Bibliographical References and Further Reading'. A set of blank pages invites you to make appropriate notes, as you wish.

**Book 4, titled 'INTERPRET: What do plants tell us?'** is the most technically detailed of the series, describing the classification of streams and listing the characteristic plants that grow in different kinds of streams and different reaches of those streams or artificial waterways. The environments and species are profusely illustrated both by photographs, often in colour and by Tina Bone's distinctive line drawings.

**Book 2, 'STREAM STORY 1: A Riveting Landscape – River Brue, Somerset'**, is a case-study of a particular river and its broader environment as it flows from the Mendip Hills across the Somerset Levels to the Bristol Channel. It describes, in a pleasantly rambling way, the history and topography of the area and the integration of the river with the local population in terms of food, waterpower and navigation. There is a great deal of interesting information displayed and illustrated. Finally the vegetation of different reaches and tributaries of the river are discussed with annotated maps relating to 1974/75 and 2013 to illustrate how changes in the riverine vegetation has been taking place, indeed, with some drastic and deplorable changes in certain areas.

**Book 1, 'DRYING UP'**, is certainly not the text to start using these books, but it is a very essential description and warning about what is happening, initially to smaller streams but now even to small rivers, as a result of agricultural drainage, over-abstraction by water companies, periodic droughts and other circumstances.

The effects of these factors may be severe, such as loss of species after drought years, which may radically alter both the marginal and aquatic vegetation. Well-illustrated examples are discussed, such

as the chalk streams of the south of England, the River Chelmer in Essex and particularly examples from the streams and Fenland of Cambridgeshire.

### **Review by committee member DB**

This series of “handy small books.....suitable for readers from teenage upwards” is dedicated to the importance of our rivers and to horror at their maltreatment. There are “many publications for scientists, for pond-dippers, birders, and anglers” but the authors were motivated by the apparent absence of “ ‘easy-read’ books focusing on the river itself and the vegetation belonging to it, and creating the habitat for all else”. Each of the four books measures 6" x 8" or so, and has a superabundance of illustrations, some in colour, some in black and white. Their hallmarks are the artistic skill of Tina Bone, and the botanical expertise of Sylvia Haslam based on a lifelong career embracing 47 listed publications.

The **Prologue to the series, Book 3** presents a valuable picture guide to 70 clearly illustrated common British aquatic plants, and a 16-page glossary of riverine and riparian terms used in the series. Particularly helpful is the categorisation of plants according to their degree of tolerance of sewage-works effluent, and their preferences for water fringe locations and specified water-flow characteristics.

The above “common plants” are the basis for **Book 4, “What do Plants Tell Us?”** Communities of the plants are shown, by virtue of their growth habits and preferred habitats, to be indicators of types and sizes of rivers, fast or slow water flow, and whether the plants are in the upper or lower reaches of their rivers. Fool’s water-cress and Lesser water parsnip are both “fairly common” and native to Britain. This booklet concludes by describing them as invaluable “bioindicators” and analyses their distribution throughout western Europe with map illustrations.

**Book 1** of the series is probably the most idiosyncratic of the booklets but confronts the most pressing emergency facing many of the rivers of south eastern England today: their “**Drying Up**”. Though the hydrology deployed is less authoritative than the botany, interesting and pertinent case studies are nevertheless presented. These range from the Foxton Stream near Cambridge, to the Hampshire River Test, the River Avon at Salisbury, the River Chelmer in Essex, and the Lincolnshire Wolds where several hundred streams were surveyed before, during, and after the 1976 drought. The strongest analysis elucidates with detailed examples the different aquatic plant life in relation to different water levels in the stream channels. A section devoted to the Cam in central Cambridge focuses less on variations in river depths than on historical changes in water quality, especially in relation to sewage, for example. Detailed historical plant records illustrate the associated changes in plant life.

The subject of **Book 2, A Riveting Riverscape - River Brue, Somerset**, rises at the junction of the Upper Greensand and the Gault Clay, not far from Stourhead and the Chalk at the western extremity of Salisbury Plain (the same stratigraphy as that of the Cambridge district). The watershed forming the boundary of the upper valley is clearly defined. As the River Brue nears Bridgewater Bay its well-defined valley sides fall away and its wide, low-lying valley floor broadens, forming a significant part of the almost-level Somerset Levels below the 20' contour. Here, downstream from Glastonbury the Brue played its part in the 2014 floods, but not nearly on the scale of rivers to the north and, especially, to the south. The post-glacial history of the Somerset Levels invites comparison with that of the Cambridgeshire Fens, and is no less complicated. The authors grapple with the intricate relationships between sea-level fluctuations, the changes of climate, vegetation colonisation, archaeology, and history.

In contrast to the other Books only the last several pages of **Book 2** are devoted to river vegetation which is analysed in relation to channel and fluvial discharge characteristics. The backbone of this section is a pair of maps on pages 42 and 43 showing the names of aquatic plants at many locations along the whole length of the Brue and tributaries in 1974/75 and in 2013. Though the maps are not credited they provide a hint of the underlying diligence and tenacity which drove the supporting research.

Most of the rest of **Book 2** describes and discusses a rich and rewarding “riverscape”, particularly visible features of its history ranging from channel management, fishing and watermills to local employment and urban development: riverscape as palimpsest.

### **Publisher’s announcement of Book 7 (July 2022)**

This book is about the chemical nature of water, clean or dirty, and also what this does to the plants which might – or might not – grow in it. There is much chemical variability, so can streams be classed on their nutrients? Yes – by using reference plant communities. The habitat chooses the plants to grow in it from amongst those whose seeds are present.

The majestic Thames, the rushing mighty Tweed or (Aberdeen) Dee, the rippling peaty stream or burn, the quiet meandering brook – rivers all over the place. There is an easy but false association in all our minds that clear water is clean. This is not so. Even in a remote place, who can be sure a dead sheep does not lurk behind that far corner?

Run-off from roads contains many “nasties”. After a week or so with no rain, when it does rain, run-off water is very dark – even near black – containing rubber, bitumen, other tyre derivatives, heavy metals, petrochemicals and other hydrocarbons from exhaust fumes – a toxic cocktail indeed. But now everyone is so used to it (and it looks just like soil) that hardly any one thinks about it.

Aquifer water may, as in Bath in Somerset, be ten thousand years old, or it may be very recent, more accurately termed “flush-water” or “storm-water”, running straight to the stream only a little below ground level. Either way the composition of stream water reflects that of the material it has flowed through...

### **Review of Book 8 (2023) by DB**

This scholarly little book, ‘suitable for readers from teenage upwards’, the eighth in the River Friend series, provides detailed analyses of the historical changes in aquatic plant communities resulting mainly from pollution and dredging.

The book is clearly based on original research by the distinguished Cambridge botanist and co-author Sylvia Haslam and skilfully illustrated by Tina Bone. There are case studies of the River Rhee at Harston and Barrington, the River Great Ouse south west of Newport Pagnell, and the River Lark near Ickleham not to mention the Tuddenham Mill Stream nearby. By way of contrast an excursion is made to the River Don in Scotland.

Introductory pages explain how and why plant communities change with changing fluvial habitat. This understanding is transferred to the case studies with results which are not otherwise easily obtained.

Given the vagaries of weather, climate, pollution, and dredging, it is perhaps unfair to expect to be able to unravel and isolate changes in the plant communities corresponding with the slow, inexorable,

and progressive decrease in stream discharges which are due to the over-abstraction of water from the Chalk aquifer.

Warmly recommended.