Evolution of a Biologist

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During our formative years we are all influenced by surroundings and circumstances. A lucky few know from an early age what they want to do in life and drive towards their chosen goal; I suspect the majority have little idea. I was in the latter group, thus my progression towards a career as a biologist was the result of circumstances, and without a particular target. Nevertheless, there must have been some predisposition towards plants, animals and environment to which the experiences related. With hind-sight one can identify some of these influences. The story resembles the traditional evolutionary tree, but in reverse; many seemingly unrelated strands gradually converging to a single biological theme.

Born in 1936, I had an unexceptional war closely involved with 'Dad's Army'. I grew up in a between-the-wars leafy suburb in south Birmingham, with a garden of 1/8th acre, 50 yards by 8 yards, on heavy Keuper Marl.

Father's real passion was agriculture. He was a frustrated farmer. As a young man in Edwardian Birmingham, he reared rabbits and chickens and kept the family in vegetables from an allotment. He had cycled to Wyre Forest and worked on local farms, where 19th century habits still lingered alongside early mechanization. He believed in self-sufficiency and that a farm was the best place for children to grow up.

Unable to farm himself, the garden became a suburban small-holding, but without the ties of livestock. After the war, when old enough, needless to say I was given the full treatment. Looking back, I was obviously being trained to be a farmer. A new border-spade for my

Brian Stephens helping on the farm whilst evacuated to Ashby de la Zouch, aged 3½ October 1939

Brian Stephens picking Merryweather Damsons aged 7, Oct 1943

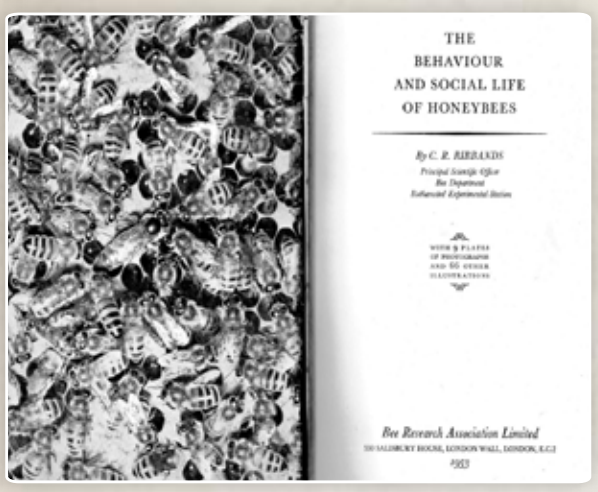
twelfth birthday conveyed the message. Keuper Marl is either like concrete when dry and breaks the spade, or wet and clings to your boots. Only a few days in the year is it workable. So the garden was put to top fruit and soft fruit of all kinds with an allotment, nearby, with workable soil, to provide vegetables. "Digging for Victory" was taken for granted.

By early teens (not a term in use then) I had the skills to work a fruit farm and vegetable plot. I was not born under a gooseberry bush, but I remember spending a lot of time among the thorns picking the fruit. Valuable playing time was taken up with digging, planting, hoeing, and in summer a mad rush of harvesting, fruit picking, weighing and preserving. (No freezers in those days.) I have an old family diary with records of crops; several hundredweight of produce in that critical year of 1940.

After the war Dad developed a hobby of propagating fruit trees. East Maling Research Station, in Kent, had produced the new 'Maling' root stocks. He became a member, and bundles of plants arrived by post. Planted in rows, the stocks were earthed up to root suckers, then these were replanted ready for grafting. I followed along tying, sealing and numbering each graft, or in summer each bud. Each tree had its history recorded in notebooks. I cut labels from scrap aluminium sheet, about 3x2 cm, with a hole drilled, copper wire was used as a tie and numbers were stamped on. These proved very durable and reliable. There were about one thou-

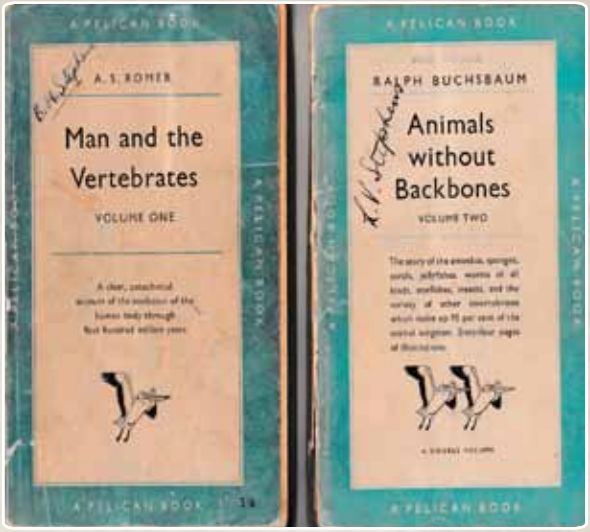
sand trees eventually on the allotment, mostly on dwarf stocks, and some rare varieties. The names were familiar, but the young trees never had fruit.

The road-sides of the leafy suburb, were planted with lime-trees which dripped honeydew in July and August. We had a garden full of fruit trees which needed pollinating, so not surprisingly, the next project was bee-keeping, the nearest the 'small-holding' had to livestock. This I did enjoy and became thoroughly involved, going to school with hands and face swollen beyond recognition from bee stings. After about fifty stings there was no further reaction. A world opened up; of practical bee-keeping, lectures, exams, honey shows and reading the new research. The work of Karl von Frisch was becoming available in translation revealing bee dances and other phenomena. Other work came from the Rothamsted Bee Department in books by Ribbands and Bailey. This was real biology.



The school library had a copy of Darwin's 'On the Origin of Species', a battered tome with yellowing pages and close tiny print, an early edition, but not at all appealing whatever it said inside. A well-wisher offered me 'Scott's Fossil Botany' which I declined, not appreciating its significance, a decision I later regretted.

More positive influences during the 1940s and early 1950s were other books, radio, agricultural shows and harvest camps. A steady stream of Arthur Ransome books fired many an imagination; introducing habits of conservation and awareness of the environment. In 1945 Collins launched their, now famous, 'New Naturalist' series with R S R Fitter's 'London's Natural History'. Later titles also revealed the wealth of species in different habitats. 'The voyage of the Catchalot' was another memorable read, of whaling in the Southern Ocean, revealing the environment of marine life. Francois Boulierre's work on the behavior of the animals of the East African savanna was fascinating, tracing their trails and migrations. Very readable and influential were Ralph Buchsbaum's 'Animals Without Backbones', and A S Romer's 'Man and the Vertebrates', together a complete survey of the animal kingdom.

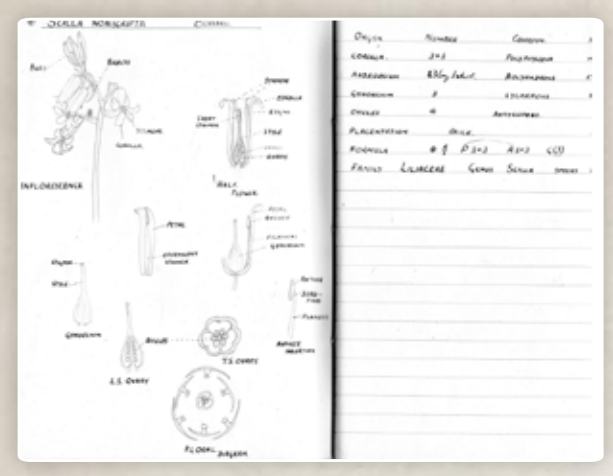


Radio was the main entertainment. For several years Country Magazine at Sunday lunch-time was a favourite, with A G Street, Ralph Whiteman and Eric Hobbes. Their discussions with farmers revealed the diversity of agriculture and local regions. Richard Dimbleby's 'Down Your Way' was another insight into regional characteristics. Eventually, on 29th May 1950,'The Archers; an everyday story of country folk.' filled the seven pm slot. Based around Bromsgrove, Alvechurch and Inkberrow, there was local interest, and in the early days, even some agriculture. Radio programmes made many famous names familiar; Ludwig Koch, with his pioneering sound recordings of animals in the wild; Peter Scott, with his work on water fowl; Julian Huxley, Janes Fisher, Maxwell Knight and Bramwell Evans (Romany) were other influential naturalists.

The large agricultural shows were of great interest revealing the breeds of farm animals and varieties of crops and new machines. The 'Bath and West', first at Cheltenham then at Castle Bromwich airfield (of Spitfire fame) was one of the first to revive, later the 'Royal' and 'Three Counties' before they had permanent sites and then the Birmingham Show where I helped stage the Honey Show.

Being taken to collect wild flowers was another inspiration. Before insecticides, waysides were unspoilt and dozens of unfamiliar plants and insects could be collected. I used an old gasmask tin as a vasculum and simple books to identify. A 1906 book by Thomas Fox, from my Father, used month of flowering, colour and common name to distinguish 1200 flowers. Winning the

school woodwork prize, I acquired 'The Shorter British Flora' by Prime and Deacock. This was written in air-raid shelters during the blitz Mr Prime later told me, non the less this was a very useful book. Latin had been a burden, yet scientific 'latinised' names presented no problem. Once one had realized the Greek and Latin roots, biological terms made good sense.



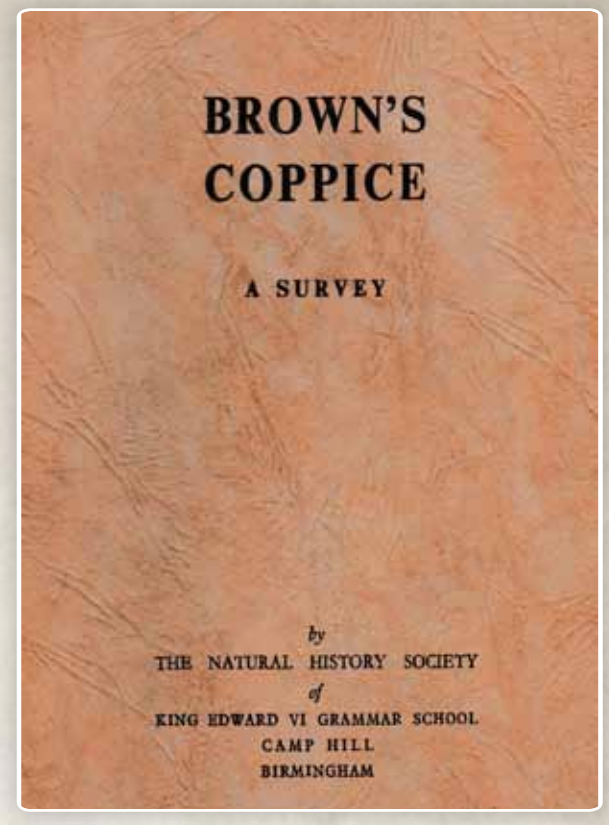
Another inspiring occasion was a lecture by Peter Scott to a huge audience, describing his new venture at Slimbridge. On a blackboard, lightening drawings of birds in flight revealed aspect ratios and angles of take-off; what a revelation for a schoolboy; understanding birds, not just names.

The second year of the newly introduced 'O' levels loomed, then decisions on 'A' levels. By now biology was an easy choice. Biology influences world food supply, world health, the production of timber and fibres; so there should be a job somewhere! I still had no particular focus, but there were obvious possibilities.

'A' levels were described as an introduction, but as an innocent beginner looking at the syllabus one wondered what else there was to know. My school years coincided with the post-war scientific revolution. Penguin Books published 'New Biology' at intervals from 1945, 31 issues in all until 1960. Here articles by eminent authors on the latest research were a revelation far ahead of our dated text books. Reading the articles one felt involved with the subject and understood that 'A' level really was only an introduction.

The school had a thriving Natural History Society, run formally by keen sixth formers. In April 1951 a speaker visited, who to me seemed elderly. He described how boys from Bootham School in York had studied the plants and animals of a local marsh area called Askham Bog and published their results. He suggested that a similar study would be good training for our Society.

So some sixth formers, aided by us younger boys, over



several years, studied an area of woodland and marsh near Solihull, called Brown's Coppice. An eighty page book resulted, with records of plants animals and environmental measurements. This was well reviewed. It fell to me, by now in the sixth form, to answer requests for copies from institutions and libraries all over Britain and the Commonwealth.

Twenty years later, working on a conservation committee, in conversation with an elderly member, it transpired that he had been the 'elderly' speaker at school. This was non other than Mr. Fred Fincher who will be fondly remembered by many as probably the most eminent naturalist within their experience.

Strangely, a few days ago, on 23rd February, 2019 The Times featured Sir David Attenborough appealing against a proposed development of 500 houses on Askham Bog. Seventy years after the school boys' study, as a sign of the times, this same site presents environmental issues, previously ignored, but with which we must urgently come to terms.

With 'A' levels completed I had reached the trunk of the 'evolutionary tree'. A traditional university course followed, one of the last dealing with classification and morphology, before everything went 'molecular' about 1960. Having reached the 'roots' of the tree it remained to explore the new and diverse opportunities as a qualified biologist.