DISCOVERIES IN AN AFRICAN NATURE RESERVE

By TRACY PHILIPPS

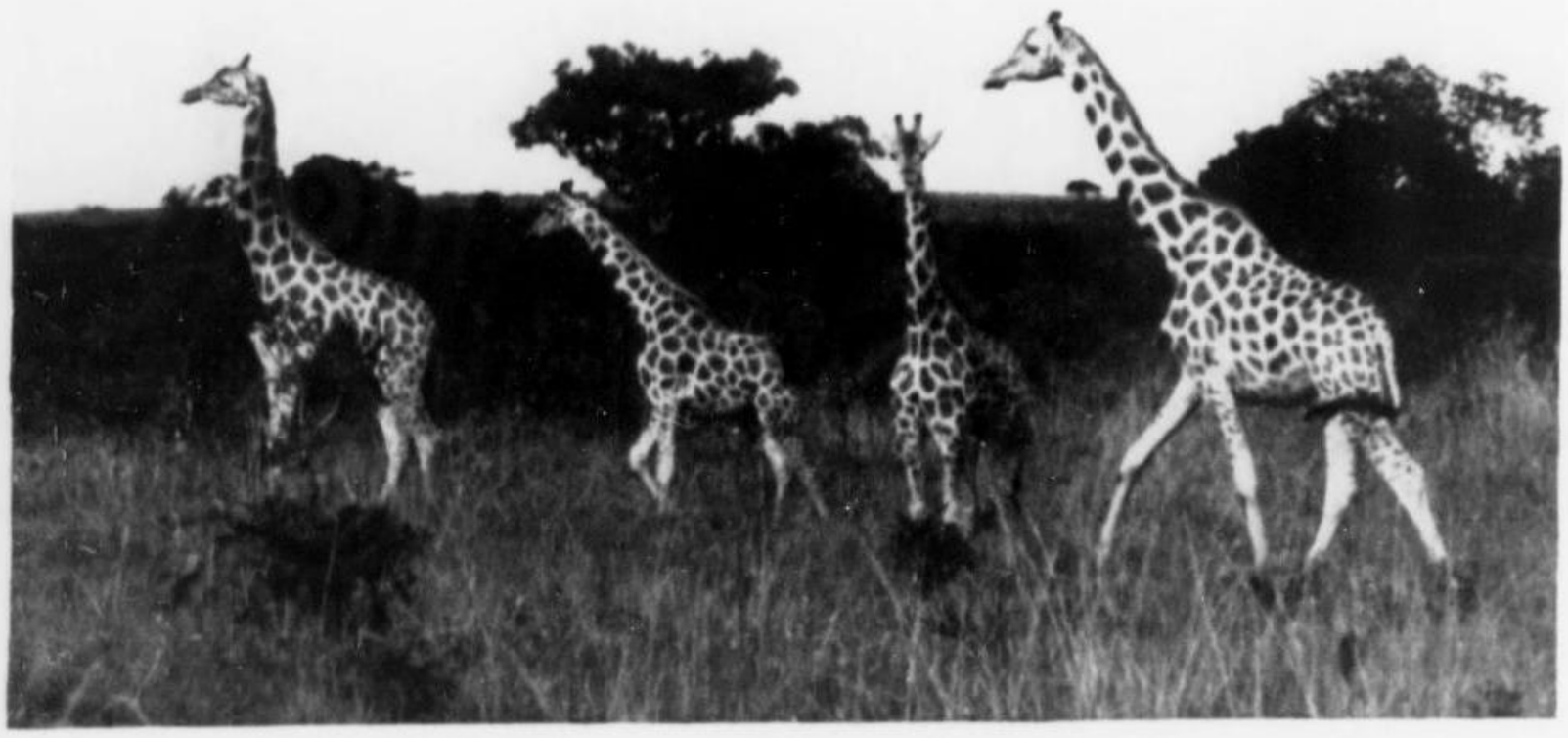
PART of a long-term scientific expedition, sponsored by the Research Institute of the Belgian Congo National Parks, under its President, Dr. van Straelen, has recently returned from the first methodical exploration of the Nature Reserve Park of the Garamba. The Park lies in the north-eastern corner of the Belgian Congo and is a triangular area bounded by the Rivers Aka and Dungu on the east and south, and the border of the Nilotic Sudan on the north. The expedition consisted of a dozen scientists, whose studies were co-ordinated by an ecologist. The Garamba region was chosen for its important position in an area open to all the tropical African atmospheric currents—those from the Atlantic, from the Indian Ocean and from the Nile. Moreover, for the purpose of scientific comparisons, the situation of the Garamba plateau is a biological look-out botanically well placed in the Sudanic province which extends to the foot of the Ethiopian plateau. The observations of the expedition tend to show for the first time that in the Garamba savannah-land a Sudanic climate preponderates during the long dry season and a Guinean climate during the great rains.

SCENE IN THE GARAMBA NATURE RESERVE IN THE BELGIAN CONGO. The Reserve is the object of a long-term scientific survey covering all aspects of African wild life

The Research Institute's basic programme aims first to establish an inventory of the interrelated flora and fauna of the Reserves whose scientific administration the Government has confided to it. Thanks to the progress with this programme, the areas in which the Congo National Parks have been so sensibly situated are now scientifically the best-known parts of equatorial Africa. In the publications of the Institute during the last eight years are to be found descriptions of no fewer than 1,334 new zoological species, of which 561 are coleoptera. From among the material collected by the Institute's scientific expeditions, 60 new botanical species have also been described.

This latest exploration has been carried out on different terms of reference from those of its predecessors. Expeditions used to be limited to collection of zoological and botanical specimens. But the Garamba expedition set out to observe and determine all the characteristics of the surroundings, climate and soil, and then to study on the spot the distribution of animals and plants in relation to these conditions. Thus the Garamba scientific mission has been able to bring together a vast documentation. The collection of vertebrates alone numbers 47,776 and that of insects runs to over a million and a half specimens. Nor has the Garamba expedition failed here to carry farther the much neglected study of the psychology of Africa's animals. Preliminary studies have been made of the relations between groups of animals, of the mutual exclusiveness of their home territories, of their differing distances of first flight from danger and of their attitude to mechanised man in moving motor vehicles.

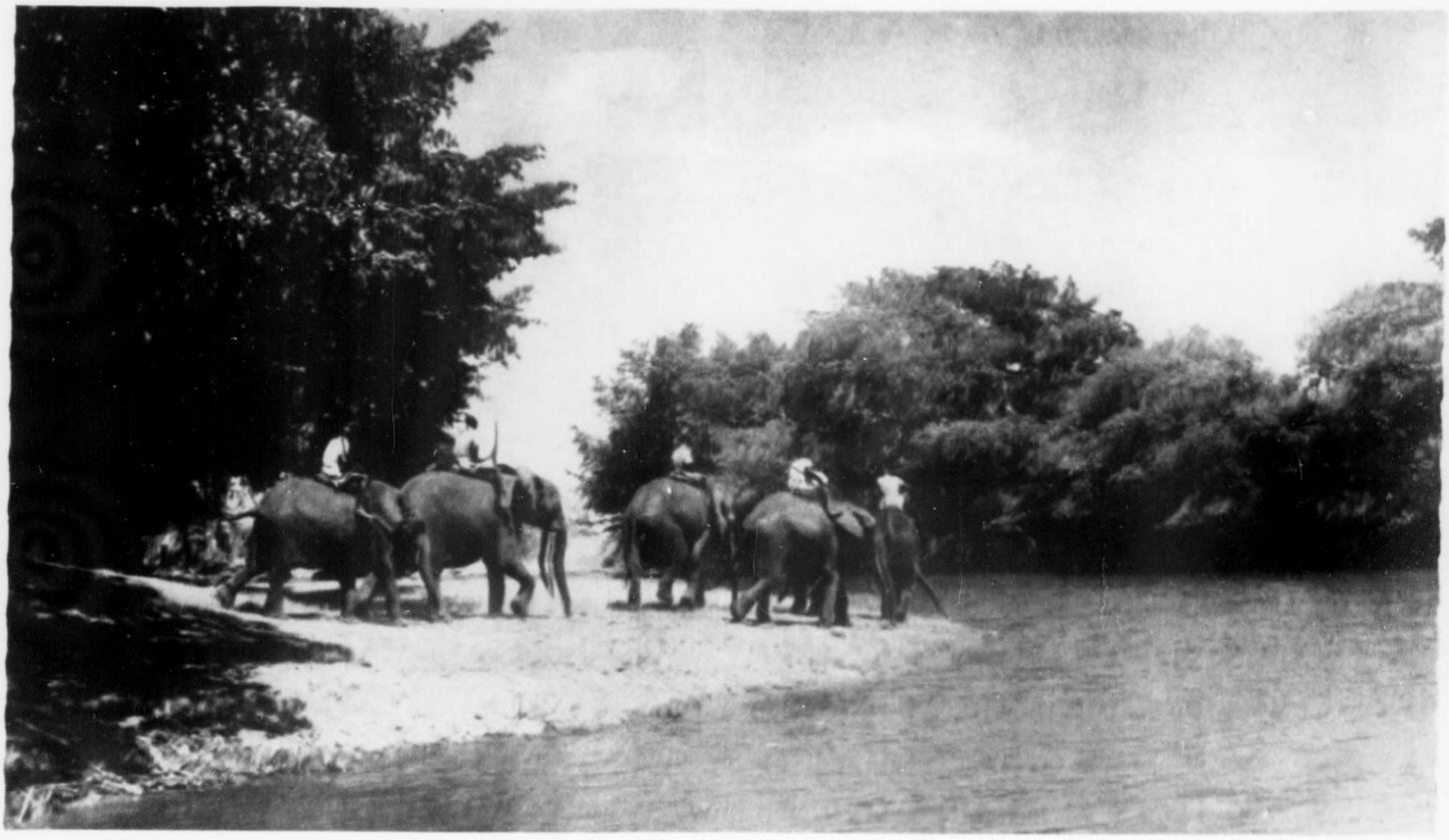
It is in the Garamba Park alone that the remaining families of giraffe and of the square-lipped white rhinoceros are to be found. Elsewhere in the Belgian Congo giraffe and white rhinoceros are already extinct. After the wet season the Garamba country is covered with tangled high grass, well over a tall man's head. Elephants and giraffes alone are able to look out over it. The giraffe is an all-too-easy target for hunters. Its tail hairs are much prized by Africans as bracelets as a mark of distinction, and are now in demand also by Europeans for high prices. Around the Abyssinian side of Lake Rudolf and in the southern Sudan, I have come upon Africans hunting by fire and wind, encircling herds of giraffe and driving them in terror up the typical isolated hills with an easy slope on one side and a precipitous cliff on the other. As many as a dozen giraffe (and several ostriches) were seen lying dead at the foot of such cliffs, waiting to be barbecued. In the Garamba there is very little of the thorny acacia or mimosa which is elsewhere their staple diet. Their habitat does not extend south to the adjacent equatorial forest, which would be quite unsuited to the habits of this animal of the wide open spaces.



GIRAFFES BY A WATER-COURSE IN THE GARAMBA RESERVE. The giraffe is hunted for its tail hairs, which are prized by Europeans and Africans, and, like the white rhinoceros, is extinct in the rest of the Belgian Congo

Like its relation the ordinary black rhinoceros, the white rhino has in our era been pitilessly massacred, not for its meat but for the traditional virtues of its horns. Rhino horn is still in great demand in the Far East as an allegedly unfailing aphrodisiac. The Garamba Reserve is to-day the most important sanctuary for the white rhinoceros. Unlike the black rhino, the square-lipped white rhino is of rather peaceable disposition. The expedition found that, unlike the hippopotamus, the white rhino is here not nocturnal. He is more choleric than curious, and less sociable than solitary. It is only at certain brief and ill-defined periods that one can find as many as a dozen or so rhinos assembled together.

The observations of the expedition were that from nine in the morning to three in the afternoon the white rhino may most often be found immobile in the shade of a tree. In the cool of the day he grazes on short grass or low bushes. Despite the thickness of his hide, there are nerve-ends near enough to the surface to make him susceptible to flies. Contrary to common belief, the white rhino does not frequent marshes or running water. He prefers separate shallow muddy pools, where the viscous clay or limonite mire gives him a thick grey coat of mud which may help to protect him against superficial parasites, and may even have caused him to be qualified as white. The expedition also confirmed that the rhino is short-sighted and his hearing mediocre. He is, however, well served by a susceptible system of living alarms. Tick birds (*Buphagus africanus*) perch on his back and rise noisily at the sight of man, the rhino's only substantial enemy. The birds render the



TRAINED ELEPHANTS BY THE RIVER DUNGU, THE SOUTHERN BOUNDARY OF THE RESERVE. *African elephants were* first trained by Indian mahouts at the end of the 19th century

rhino another service, by picking off irritating and blood-sucking ticks and leeches, rather as *Herodotus 450 years before Christ noted that* plovers serve the crocodile in his mouth.

There existed until recently at the south-west corner of the Garamba Reserve, on the River Dungu, the elephant-training farm of Gangara na Bodio (Bushbuck Hill). In the 1880s, at a time when neither automobiles nor roads *existed in the Congo, Leopold II, King of* the Congo, anxious to reduce the burden of human porterage, conceived the idea of training African elephants (Hannibal's battle-tanks) *for ploughing, for bush-transport to and from* river routes and for logging. The Indian elephants, brought to initiate the training, perished *en route*. Subsequently, half a dozen Indian mahouts taught the Zande keepers the manipulations, the soothing songs and the age-long sounds of command with which, in India and Burma, man had trained elephants to work for him.

In view of the fact that, north and west of the Reserve, sleeping sickness is a curse paralysing the freedom of human movement and breaking up clans and families by medically-enforced separation, it is a notable discovery of this recent mission that in the Garamba, where the periodic assemblies of elephant herds (in ill-defined periods of *furor elephanticus*) seem to have cleared some areas of Big Bush, there is a notable absence of the tsetse *Glossina morsitans*, despite the presence of ungulate game. However favourable a factor certain antelopes may be to the existence of the tsetse, which carries certain human and animal diseases, they are evidently not always necessarily the determining factor.

In this notable elephant area the expedition observed elephant gatherings with great attention. Their migrations do not necessarily correspond with the mating season or with the need to seek new feeding-grounds. It has now become possible to outline at least two distinct periods in these animals' biological cycle. One phase is the gregarious or social, the other is the family phase. It is interesting to notice how simultaneous is the urge leading elephants of the same species to assemble not only at the same place, but also at approximately the same time, coming from vast distances apart. Nevertheless, for all that, the present writer feels that the belief in the existence of elephant cemeteries, to which old elephants are alleged to retire to die, must remain still in the realm of the unproven. *The big deposits of elephant bones* which have been reported by travellers may well *represent, like those of the dinosaurs, the return* of these unadaptable pachyderms to a familiar and favoured watering-place which in a following year or season they may find become an unstable or quaking bog in which the unwary are engulfed. In this same territory I have come upon deposits of bones of as many as *30 elephants together where they have been* trapped by converging walls of bush fires so fierce and so extensive as to preclude escape.

The expedition has noted that the African elephant, where he is untracked by man as in the Albert Park of the Congo, with its open spaces and good visibility, has, for a large part of his annual biological cycle, a character which is calm and sociable and even relatively free from fear. *Certain observers have suggested that the* periodic *furor elephanticus* arises from disorders or decay of the teeth. The expedition's observations, however, go much farther than this. It was noticed that, quite apart from any apparent cause, at certain times elephants show an irritation which is reflected in their attitude towards the vegetation. It is towards the end of the great rains that appears this period of abnormal and acute ill-humour. During this time the *elephants commit considerable depredation*—branches are wrenched off, trees uprooted and big tree trunks lacerated by their tusks. At such a time they are more aggressive towards man and to Africans' thatched dwellings.

Two causes appear to be the origin of this behaviour. Observations showed that the *periods of aggressiveness correspond with a* swelling round the temples, following the obstruction of certain glands. *This may go as* far as the opening of the secretory canals and discharge of an oily matter, together with marked diminution of urination. The second cause may be alimentary. At the end of the dry season pasture has reached the end of the vegetative cycle and is so dry as to sound in the wind *metallic. Even the antelopes wound their lips* trying to reach, through stubborn stubble, the first signs of blades of new grass. Water is scarce and elephants are under-nourished, feverish and irritable. Their passing change in character wreaks itself on the nature around.

To-day the elephants are rapidly diminishing in numbers. It was clearly incompatible

WHITE RHINOCEROS HURRYING FROM A BUSH FIRE IN THE GARAMBA RESERVE. The white rhinoceros is less irascible than the black and is short-sighted

TWO WHITE RHINOCEROSES SHINING WET AFTER WALLOWING IN THEIR FAVOURITE GREY MUD IN THE GARAMBA RESERVE

with serious observation of an undisturbed balance of nature that there should be annual armed incursions from Gangara na Bodio into the Reserve to capture them. The season 1947-8 cost the Garamba 94 elephants, of which 38 were mothers killed in protecting their young, though the use of firearms was forbidden except in legitimate defence of human life. The expedition is ready to admit not only the existence of a big elephant population in a near past, but also the hypothesis that the Garamba has always been the assembly-centre for herds coming from East Africa, the Sudan and what is now French Equatoria. The expedition again observed that, despite his strength and tonnage and except at certain unexplained seasons or when molested, the elephant is a myopic and a timid beast.

The tropical botanists of the expedition did not lose sight of those plants which exude their own toxins protecting them against pests, in case they can be cross-bred for the progressive protection of economic agriculture.

Remarking a certain specific similarity between the fish of the Congo and the Nile, which may arise from previous connection between these two vast river systems, the expedition recorded a most interesting bio-geographical discovery, not I think previously recorded. In that section of the Congo-Nile Divide touched by the north of the Garamba Reserve, near the intersection of 4° 20′ N. with 29° 50′ E., there exists, in a hollow of the hills of the Divide, a swamp which in the rainy season feeds the Rivers Moko and Tori, which run south through the Congo and north through the Nile respectively into the Atlantic and the Mediterranean. The present conformation is not such as normally to admit the free passage of fish in the dry season. But this does not exclude the probability of a not very ancient connection here between the two river systems of the Congo and the Nile. As an analogy, moreover, farther south, after heavy dry-season thunderstorms, dry, long-grassy hollows in arid savannah-land can be seen thick with large *siluridae* stranded by a receding rain-flood of a few hours, during which they have run up from a main river. These infrequent and irregular torrents come from high ground after thunder cloud-bursts, such as are common also along this western section of the Congo-Nile Divide. The remarkable feature is the speed with which fish from shrunken rivers rush up over the momentarily submerged grass along ancient and disused water-courses. The fish thus find themselves stranded in the Bush, or in this case, perhaps, sometimes in a common Congo-Nile swamp.

Illustrations: Institute of the Belgian Congo National Parks.

I BOUGHT A MANOR

By K. E. SANDERS

I HAVE never ceased to be fascinated by the odd things which some people collect. Stamps, coins, matchboxes, theatre programmes and pictures of film stars are among the most commonplace. I once knew an undergraduate who collected coal-hole covers, and my own small son is a passionate collector of old cardboard boxes. Not many people would think of collecting lordships of manors. But one solicitor did, and a few weeks ago I attended the sale in London of the second part of his collection—the Beaumont Collection. I wanted a particular manor for a particular reason.

I suppose it is only when we have children ourselves that we begin to be interested in our forbears. Certainly as a child I listened with less than half an ear to my great-grandmother's stories of her family: the great-great-grandfather who, at nineteen, ran away from his respectable family, carrying nothing of his old life with him but a crested seal ring, became a Light Dragoon, fought at Chilianwallah and died in the Mutiny; the baby who escaped in the nick of time from Cawnpore, who was my great-grandmother herself. These—and many other stories she told—would interest me far more now that I have children of my own to hear them.

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So, when my husband's father died recently, leaving among his papers the usual early-19th-century family Bible, we amused ourselves by digging into his family's past.

The Bible's original owner was a Londoner, Robert Sanders, living in Orme-square, then newly built. In a precise neat hand, and an emotional style, he had catalogued his two wives and their eleven children, their births, baptisms, childish illnesses and, for most of them, an early death and burial in Old St. Pancras Churchyard. Fanny died at six months "of convulsions under the influence of teething"; the twins, Septimus and Octavius, "had the Hooping Cough, the Chicken Pock, and died of Scarlatina under the influence of teething two days before their First Anniversary, and while their dear Brother Robert lay a corpse in the house. All three were interred in the same grave with darling little Fanny and Muriel." Only two of the children grew up; one disappeared in Australia, and the other became my husband's grandfather.

We were too far back for birth certificates or census returns to help, but something in Robert's literary style suggested the lawyer, and when we looked, there he was in the Law List. We traced him back to the year of his articles, and there found him described as "second son of Charles Sanders Gent., of Stoke Ferry in the County of Norfolk."

This took the search back to the fringes of the Fens at the end of the 18th century and there, after correspondence with the vicar, parish registers and gravestones took us back two generations farther still. Charles Sanders had married Emily, only child of James Bradfield, of Stoke Hall. James's will, unearthed in Somerset House, gave thanks "to God who has so prospered me that I have risen from poverty to riches in my native place," and entailed his estates in Stoke, Wereham and Wretton on Emily's five sons in turn, and their sons in tail male. He must have seen himself founding a long line of squires. (We had visions of an unexpected inheritance until we discovered that such entails are no longer valid, and that this one had been broken nearly a century ago.)

James Bradfield's birth was recorded early in the 18th century. And there we stuck. No doubt a genealogist might have taken us farther, but we were more interested in the hunt than in the quarry. Some day, we thought, we might go to Stoke Ferry and try again.

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Then came the sale of the Beaumont Collection of manors, and in the auctioneer's announcement, tucked away among such places as Great Snoring and Yaxlee Bulls, the familiar names, Wereham, Stoke, Wretton caught my eye. I studied the particulars of sale and found that Stoke Manor was granted by the Conqueror to Ranold, and that in the 18th and early 19th centuries it had been held by James Bradfield, his daughter's husband Charles, and their eldest son James.

This was at the season of the year when I search desperately for a Christmas present for my husband that is neither shirts, slippers nor cigars, and I thought I had a real inspiration. What could be a more original present than the lordship of a manor which his great-great-great-grandfather had held? I studied the particulars again. The lord was entitled to keep the records, summon courts, dig minerals, cut turves and sport on the commons (if any remained). There was even, according to Blomefield's *History*, "that savage custom of the bride of a tenant lying the last night with the Lord of the Manor," but since this was last claimed in 1260 I thought perhaps I could forget about it.

I conjured up a pleasantly feudal picture (it would have appealed to the James Bradfield who made the will) of my husband summoning the Homage to Views of Frankpledge and Courts Baron, marking transfers of land between freeholder "by Twig and Turfe," collecting "six pence apiece" from absentees, and then going off to sport over the common. I toyed with the idea of valuable mineral deposits under the wastes. More practically I thought I might write up the records, which go back to 1536.

Nobody, not even the auctioneers, had much idea what a manor might cost. Still, I thought, it might be a more amusing possession than those few gold shares which keep going up a little and then down rather more. The sale room was crowded with people. Some, from their voices, were Americans; others, from their conversation, were town clerks come to buy the lordship of their own manor for their councils. Since I am the world's worst bidder I had arranged for the auctioneer to act for me. Some of the early lots were very popular. Plenty of people apparently wanted to be lord of Great Snoring, or to hold the manor of Byfleet which the Black Prince had held. But few, luckily, were interested in Stoke-Wereham, whose only attraction was its fine collection of records. The bidding crept up a little, but finally the auctioneer's hammer fell and the manor I wanted was mine.

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As a Christmas present it scored a great success with my husband. And now we have an energetic time ahead. There are plenty of records to occupy us—minute books, dockets, rentals, maps marked with the names of the fields and of their occupiers, and sixteen thick folio volumes of court books, going back in almost unbroken sequence from 1920 to 1536, the 19th-century volumes in legible copper plate, the earliest of all quite beyond my own reading. However, I have a friend expert in these things and I foresee a busy time in transcribing the court books. Perhaps we shall trace the family tree a little farther back. At all events, we shall have a fascinating picture of one Norfolk village over 400 years. When summer comes we must visit Stoke Ferry for the first time and see whether there are still any commons from which we can take twig and turf. And there is a fascinating but unfinished correspondence with the post-office about wayleaves—one shilling a year for each telegraph pole—which we must pursue.