

IN MEMORIAM

KAREL HENDRIK VOOUS (1920-2002)

In the early morning of 31 January 2002 Professor Dr Karel Hendrik Voous, Honorary Member of the NOU (Nederlandse Ornithologische Unie, Netherlands Ornithological Union), quietly passed away in his home at Huizen (Noord-Holland, The Netherlands). His health had been slowly failing him over the last years and particularly over the last few months. Still, only a few days before his death he had completed the manuscript of an essay about the threatened leopard, a companion volume to his earlier book on the lion (Voous 2000). This illustrates his lifelong strong interest in conservation. Also his interest in biogeography was still vivid: at the same time he was updating and preparing for publication his lecture notes on the history of the distribution of the Anatidae. The last paper of this series appeared in 2001 (Voous 2001). It can be said that he worked as long as he saw the light of day.

Karel Voous was born at Amsterdam on 23 June 1920 as the youngest of two children. His father K.H. Voous Sr was an employee of the municipal social service, his mother J. Voous-der Nederlanden cared for the family. In the home of his parents a warm and stimulating atmosphere reigned (van der Lee 1990). It was a great loss when his elder sister died in her late thirties. His father died in 1963 at the age of 72. In her latter years his mother suffered from various illnesses. Nevertheless, she lived to the age of 96, dying in 1988.

Even when he was very young, Karel showed a lively interest in birds. He loved birds and observing them was literally of vital importance for him up to his old age. As a somewhat apocryphal anecdote, he once told me that as a toddler he was caught trying to open an attic-window and catch birds by putting salt on their tails. According to his short autobiography (Voous 1995, p. 527-528) he had no recollection of a time that he did *not* watch birds. Soon he also started to record his observations. His first paper, written at the age of 14 (Voous 1936) is a boyish report of a bird-



Prof. dr. K.H. Voous

watching trip to Rothoek, north-west of Amsterdam. At Saturdays he used to go on cycle tours with his close friend Henk van der Lee, birding in the surroundings of the city. In 1937 they both became members of the 'Central Bureau for Bird Records' of the Amsterdam department of the NNV (Netherlands Society for Natural History). By that time Karel had also joined the NJN (Netherlands Youth League for Nature Studies), where he was honorary secretary of the group Amsterdam 7, *De Grutto* (the Black-tailed Godwit) of which Henk was chairman. They contributed short papers to the NJN journal *Amoeba* and to *Inktzwam*, the journal of the Amsterdam group. Already at this age, heart problems gave reason for concern to his friends and relations (van der Lee 1976) and ever since he had to confine his activities to a level dictated by his physical condition. One of the consequences of this was that he could never embark on studies involving strenuous field work.

In 1938 he enrolled as a student of biology at the Municipal University at Amsterdam, counting among his teachers J. E. W. Ihle, anatomist, and L. F. De Beaufort, zoological systematist, director of the Zoological Museum Amsterdam (ZMA, belonging to the university). In 1939 Karel was appointed assistant of De Beaufort at the museum initially registering specimens in the department of malacology and from 1940 working in the bird collection. When university education came almost to a standstill owing to the German occupation during the Second World War, he identified and registered the bird specimens safely stowed away in the cellars of the museum (at that time about 10,000 specimens). Many of these were mounted specimens from all over the world acquired by the 'Artis' Zoo (Koninklijk Zoologisch Genootschap *Natura Artis Magistra*) during the nineteenth century (Roselaar 1990). He also brought in safety the so-called 'trade collection' of Indonesian birds at the Kolonial Institute (now Royal Tropical Institute, Amsterdam) at the time head quarters of the German SS.

His work in the museum gave him an unprecedented knowledge of the diversity of birds. Owing to his phenomenal memory, he had this knowledge always at his disposal in making comparative studies of an avifauna. It was characteristic for his vivid imagination that he used to say that a study skin for him really represented the living bird as it could be seen in the field. He was not just arranging museum skins, but trying to interpret the hidden order which systematic studies can approach but never quite reach. No doubt helped by his extensive knowledge of museum specimens, he was an expert at field identification in the era before any sophisticated field guide had been published.

Voous was also interested in the anatomy of birds. This is shown by a study of an extensive series of Jays *Garrulus glandarius* (Voous 1944). In later years he studied the intestinal track of Anatidae and birds of prey in relation to their preferred food. Being an excellent draughtsman, he enjoyed making beautiful anatomical drawings. Even the lecture notes he took during the first year

of his study are at places nicely illustrated.

As a graduate student he was involved in the discovery of the Red-crested Pochard *Netta rufina* in the Botshol reserve, south of Amsterdam. His paper on the discovery (Voous 1943) already shows his interest in the elucidation of the distributional history of species and also his habit of thoroughly researching the literature. Later it was found that this species shows signs of breeding parasitism, which Voous could prove by comparison of eggs in the collection of the museum. Other early papers show his interest in geographical variation and faunistics. He finished his graduate studies in 1945 shortly after the war.

Immediately after his graduate studies he took up his first big research project as a PhD student of De Beaufort. Only a year and half later he defended his thesis 'On the history of the distribution of the genus *Dendrocopos*' (Voous 1947). He applied the meticulous study of geographical variation in colours and measurements to the reconstruction of the glacial and post-glacial distribution of the spotted woodpeckers of the world. The work was an outstanding example of the type of micro-systematic and biogeographical research current at the time. This study was stimulated by his supervisor, who had analysed the biogeography of the Indonesian Archipelago (De Beaufort 1926) and certainly also by Ernst Mayr's book on Systematics and the Origin of Species (1942). Voous corresponded extensively with Mayr at the time of his PhD study. He obtained the degree of doctor *cum laude*. Shortly afterwards he was appointed curator of the bird collections of the museum. Also in 1947 he was married to Henny C. Luiting (born 1917) who survives him. In 1950, when W.H. Engel had succeeded De Beaufort as director, Voous was appointed deputy director of the museum.

In 1946 the NOV (Nederlandse Ornithologische Vereniging, Netherlands Ornithological Society) elected Voous as its honorary secretary. Since 1911 the Dutch ornithologists were organised in two competing societies. The Club van Nederlandse Vogelkundigen (Club of Netherlands Ornithologists) represented the ornithologists

who accepted the collecting of specimens as a tool of the science. As a museum worker Voous agreed and it was a sign of improving relations that he could be a member of the Club and at the same time hold an important office in the NOV. He worked hard and tactically to mend the split. He succeeded when in 1956 the Netherlands Ornithological Union was formed by a fusion of the two. This fusion was celebrated with a festive meeting on 19 January 1957 of which Voous wrote the report (*Limosa* 30: 164-167, 1957).

Voous' study of the spotted woodpeckers was preceded by work along similar lines about the northeastern subspecies of the Jay and followed by analyses of the distributional history of the bullfinches *Pyrrhula*, the Jackdaw *Corvus mone-dula*, the Greenfinch *Chloris chloris*, the Jay again, the Nuthatch *Sitta europaea*, the Song Thrush *Turdus philomelos* and the Black Woodpecker *Dryocopus martius*. In fact, he intended to work towards a full history of the European forest avifauna. Later he would draw on the assembled data for his famous 'Atlas'. At the same time he also studied the geographical variation of a number of Indonesian species. In many of these studies he cooperated with two older friends, who both owned important private bird collections, P. A. Hens and J.G. van Marle.

Geographical variation of landbirds was not Karel's sole interest, however. In the Antarctic summer season 1946-1947 the Dutch whaling ship Willem Barendsz went on a whaling expedition to the southern Atlantic Ocean. On board were a number of controllers for the International Whaling Commission, W.H. Bierman, H.F. van Lee, J.P. Strijbos and W. Vervoort. They all collected zoological material. Particularly Bierman and Van der Lee assembled a magnificent series of Antarctic birds. During the next trip of the Willem Barendsz, some more birds were added to this collection. An anatomical and systematic study of these was enthusiastically taken up by Voous. A detailed report, written by Bierman and Voous, appeared in 1950 and is still a valuable source of information on Antarctic ornithology. The distribution of marine birds remained one of the focal

points of his interest and he had the opportunity to make at sea observations on a number of trips to the West Indies and to South Africa. One of the few 'purple passages' in his writings is a short report on the fascinating bird life in Walvis Bay, Namibia — at the time called South West Africa (Voous 1958). At the museum he kept a voluminous archive of observations at sea. In the fifties and sixties several mariners sent him extensive reports of the birds seen on their voyages, the most important being Capt. W.F.J. Mörzer Bruyns. At the invitation of the Royal Netherlands Navy some of his PhD students spent time aboard oceanographic study vessels on Atlantic crossings. In addition, British and Dutch weather ships included seabirds in their routine records and sent the data also to Amsterdam. Scraps of information from this archive were published as 'Notes on Seabirds', a series running in *Ardea* for about 15 years since 1963. For his merits for the study of seabirds he was awarded honorary membership of the Royal Naval Bird-Watching Society in 1959.

In 1951 the Natuurwetenschappelijke Studierkring voor Suriname en de Nederlandse Antillen (Scientific Circle for Surinam and the Netherlands Antilles), supported by the National Government, assigned Karel and Henny Voous the task of fully describing the avifauna of the Netherlands Antilles, up to that time only fragmentarily known. He spent from 22 September 1951 - 19 April 1952 there, visiting all the islands (vivid descriptions of their natural beauties in the introduction to Voous 1955). He collected 1150 birds, many of these expertly skinned by Henny, which still form the nucleus of the important holdings of Antillean birds in the ZMA. This visit resulted in two scientific treatises, several smaller papers (some written together with local ornithologists) and the first identification guide for the birds of the area (Voous 1955a, illustrated by his lifelong friend Henk Slijper). In fact this book went beyond the confines of a bird guide as it also gave many particulars of the species treated. Significant was the fact that it included notes on the conservation of rare and endemic forms. During their stay in the Netherlands Antilles the Voous couple made

many friends among the local bird watching community, friendships which often lasted for life. These friends did continue to send observations on Antillean birds, additions to the bird list and specimens collected or found afield in the islands. He and his wife visited the islands again in 1961. This resulted in the publication of two much-extended check-lists, for Aruba, Curaçao and Bonaire in 1965 and for St. Martin, Saba and St. Eustatius in 1967 (in collaboration with H.J. Koelers).

The year 1955 saw the start of Voous' activities as a university teacher. He was nominated to the position of part-time professor of zoogeography at the Free University in Amsterdam and inaugurated with a lecture on the problem of the geographical division of the terrestrial fauna (Voous 1955b). From then on he spent the Friday mornings at the Department of Biology where he inspired the students by his excellent lectures on ornithology and zoogeography (incidentally, the first series dealt with 'Distribution of Seabirds'). The notes taken at the time are still kept and cherished by some of them. They were fascinated by the specimens from the museum collection with which he illustrated these lectures (the bigger ones transported by an assistant on an old-fashioned tricycle carrier). Quite unobtrusively but also decidedly Voous expected to be called by his title of 'professor' and soon the word became a kind of alternative Christian name under which he was known throughout the Dutch ornithological community. Professor Voous initiated a series of student excursions abroad with the aim of introducing his students to the ecology and bird life of areas in Europe differing climatically strongly from their home surroundings (it was at a time that international holidays were still rare and went rarely further afield than adjacent countries). In the first years also the other professors and almost all graduate students took part in these excursions. Voous often enlisted the help of his friends in the country of destination for lodging or guidance in field trips. During his years as a teacher, he was admired and loved by his students, whom he succeeded in giving lifelong inspiration for ornithol-

ogy and zoogeography. The fact that so many of them attended his funeral service bears witness to the lasting impression his enthusiasm in teaching had made on them.

Almost from the start of his activities at the museum Voous had been assembling information on the geographical distribution of European birds, neatly arranged by species in a big archive of hanging folders. This formed the material from which he distilled the text of his Atlas of European Birds (Voous 1960). The book was written at the request of the publishing firm Elsevier, but Voous struggled fervently to make sure that it fitted entirely his own concept. In it, he assigned all species to faunal elements (or 'faunal types'), implying that a regional fauna is composed of groups of species sharing a particular distributional history. This history is dependent on the geography and the ecology of the species' range over geological time. The faunal elements together explain the composition of the avifauna of a continent. This atlas may be considered the zenith of Voous' scientific achievements. It is written from a single consistent point of view and tells an impressive story. It is a beautifully produced and highly readable book, soon translated in two other languages (English by himself, German by Michael Abs). It brought him world fame and for the next decade and a half he was internationally the best known Dutch ornithologist. This reputation was enhanced by the organisation of the Fifteenth International Ornithological Congress (IOC XV, The Hague, 1970) in his capacity of Secretary General.

A study of the geographical distribution of birds makes it amply clear that the ranges of European birds are strongly influenced by man and his culture. In many of the texts of the atlas reference is made to regional extinction owing to habitat change (particularly reclamation of wetlands) and direct persecution (particularly birds of prey). In this light it is almost inevitable that a zoogeographer should also become a conservationist. In the course of the sixties it became apparent that the pesticides used at the time had very dangerous side-effects for the fauna. Rachel Carson alarmed

public opinion with her *Silent Spring* (1962). She argued that, apart from that targeted pests, many other species were suffering massive declines. Birds of prey and owls, groups that lay Karel close at heart, were hard hit. It was even feared that a magnificent species as the Peregrine Falcon *Falco peregrinus* would go extinct altogether. This led to a strong upsurge of activities of conservationists and, in addition to his growing academic duties, Voous assumed a leading role in the conservation movement. His student Maarten Bijleveld was involved in the setting up of the Netherlands appeal of World Wildlife Fund. When the population of the Goshawk *Accipiter gentilis* was at its lowest ebb, Karel supported Maarten in a reintroduction project (*Operatie Havik*, see Voous 1964). Voous played an important part in the newly formed Working Group on Mammals and Birds of the Commission for Side-effects of Pesticides.

He also became a member of several governmental and non-governmental conservation groups: the preliminary Conservation Council and its Scientific Committee, the Contact Commission for the Preservation of Nature and Landscape and the Netherlands Section of ICBP (International Council for Bird Preservation). He served on the board of the Nederlandse Vereniging voor de Bescherming van Vogels (Vogelbescherming Nederland, Netherlands Bird Conservation Society) and was instrumental in restoring confidence when the tragic incompatibility of character of two of Vogelbescherming's officers shook the society to its core. A lasting sign of his activities may be seen along the road from Amsterdam to his home village of Huizen. Near the Naardemeer high power lines have been brought much lower down to allow Great Cormorants *Phalacrocorax carbo* breeding at the lake free passage to the feeding grounds in the IJsselmeer. The electricity company made these amendments at the advice of professor Voous. Overseas he was involved in conservation in the Netherlands Antilles. In his field guide he made a plea for measures to conserve several of endemic forms occurring in the islands. Later he lobbied for the protection of the tern colonies on small islands in the lagoons

and, together with Dr Jan H. Westermann and Drs Jan Rooth for the creation of a flamingo reserve in the midst of an extensive area of salt-pans exploited by the Antilles International Salt Company.

In the past birds of prey had been relentlessly persecuted as competitors by hunters and game keepers all over Europe. Now they were threatened with extinction by the impact of toxic chemicals. Voous brought hunters, falconers and conservationists together in a National Consultation on Birds of Prey, Amsterdam 7 march 1964. Raptors had always been seen as competitors of the hunters, but in the face of their threatening demise, many of them were won for their cause. Along with others, Voous pleaded for the role of predation as an essential phenomenon in a healthy ecosystem. In 1966 conservationists and hunters cooperated for a second time in finding a solution for the problems of overhunting of geese. In later years Voous saw with regret that the peaceful coexistence of hunters and conservationists was not to last. An ardent anti-hunting lobby arose and both groups were again diametrically opposed. However, relations were still friendly during the European Conservation Year 1970 (N70). Voous was nominated chairman of the Netherlands national committee. Several times he appeared on the TV screen in this capacity explaining the need for conservation. He also chaired the working groups on geese, birds of prey and meadow birds. In his reports of N70 he tried to convince the government of the importance of the subject. In hindsight it can be said that conservation has been on the political agenda ever since, although with varying success.

In 1964, Voous was appointed full time to the chair of Zoological Systematics and Zoogeography at the Free University. He accepted this full professorship under the condition that he could retain his office at the Zoological Museum and also that his secretary should be working there. He felt that his scientific work was vitally dependent upon proximity of the bird collection and the library of the museum. From then on, he divided his time between the university at the outskirts of the city and the centrally situated museum, where

his pupil Jan Wattel took over his role as curator of the bird collection. At the university he formed a small team consisting of Gerda van Baars-Klinkenberg (general assistance and literature research), Jan de Bruyne (distribution of seabirds), Tjalling van Dijk (hearing in owls) and Ebel Nieboer (zoogeography of birds of prey). Next to the university buildings a number of cages were built for the owls with which he intended to perform vocalization and hearing studies.

On leaving ZMA as curator, he could look back with satisfaction. The department was bristling with activity. There were always some graduate students working on short research projects. It was very characteristic of Voous' scientific attitude that he valued the contribution of the knowledgeable amateur as much as that of the professional. He never shut himself in an ivory tower, but was always highly approachable for anyone who had an interesting observation to relate or an interesting query to put. Under his supervision, the bird department at the Zoological Museum became the meeting ground for many amateur ornithologists. This had as a consequence that great many skins of birds found dead in the countryside were added to the collection. Voous took pains to acknowledge these gifts and to write the finders a short letter with some particulars about the bird. Another rich source were migratory birds found dead at the foot of lighthouses or aboard lightships. When he left, the collection had more than doubled and was infinitely better registered (Roselaar 1990). It had become standard procedure to note the weight of the bird, the fat content and the condition of the gonads (for females also the oviduct) on the specimen label. All the skinning and recording of data was done by the taxidermist P. L. Graat, who was trained for the task by Karel himself and had a full-time position at the bird department. Consequently, the Amsterdam collection, although relatively small, was one of the best documented. Later, this proved of great value when it formed the basis for the species descriptions in 'Birds of the Western Palearctic'. During the work on this series, Kees Roselaar discovered a new species and several new subspecies.

The Greenfinch of the Atlas Saharien in Algeria he named *Carduelis chloris voousi* (Roselaar 1993).

One more development came about during his curatorship must be mentioned. On 2 April 1958 a duck hit a KLM plane flying high over Germany. The short paper he wrote on this little incident (Voous 1959) marked the start of a very practical line of research. Soon afterwards the officer responsible for flight safety in the Royal Netherlands Air Force came to the museum and asked whether Voous or his staff were prepared to identify bird remains collected after collisions of birds and aircraft. They were, at first voluntarily and later under contract and ever since and the bird department has been the Dutch centre for identification of bird remains.

After having studied the fauna of an entire continent, Voous was eager to take up a comparative study of an entire group of species. He now chose the predators as the focus of his research. These present a good model for the study of structure and function. In every local community there is a restricted number of species. The principle of competitive exclusion operating, these allocate the available resources in some way or other. A study of what he called 'predation potential' clearly shows what he had in mind (Voous 1969a). On the other hand, it may be expected that in different regional faunas across the world similar types of predators are present. This offers scope for a study of geographical and ecological differentiation. Several of his PhD students started to work along these lines. Ebel Nieboer analysed the harriers of the genus *Circus*, Jan Wattel the sparrowhawks and goshawks of the genus *Accipiter*. Wim Schipper compared the ecology of three species of *Circus*, Paul Opdam two species of *Accipiter*. Chris Smeenk worked in a fauna with many predators, East Africa, Tjitte de Vries studied the Galapagos Buzzard *Buteo galapagoensis*, which is the only diurnal bird of prey in the islands. Maarten Bijleveld documented the destruction of raptors in Europe in the 19th and 20th centuries. Owls were probably even closer to Karel's heart than birds of prey. As nocturnal predators they rely probably as

much on hearing as on sight in locating their prey. Tjalling van Dijk, working in the facilities of the Zoological Laboratory of the Free University took his degree on hearing in owls. Gerrit Hekstra analysed the relationships of the American species of *Otus*. Other PhD students were Piet Ploeger (Arctic Anatidae), Rienk de Jong (Hesperidae, butterflies), Gerard Boere (waders of the Wadden Sea) and Peter Weesie (quaternary avifauna of Crete). Professor Voous acted as co-promotor for Ko de Korte (Long-tailed Skua *Stercorarius longicaudus* and waders of East Greenland).

At the IOC XIV (Oxford 1966) Voous succeeded in convincing the International Ornithological Committee that The Netherlands would be the ideal country to organise the IOC XV. Niko Tinbergen (Secr.-Gen. of XIV IOC) was appointed President and Karel himself Secretary-General. For himself and his nearest collaborators this involved a tremendous amount of work, but it was crowned with great success. Niko Tinbergen unfortunately could not attend owing to health problems and in his place Finn Salomonsen from Copenhagen was appointed President. The congress was held at The Hague, 30 August - 5 September 1970, many of Karel's students being involved in various functions to assure a smooth running of the meetings. This gave them a welcome opportunity to get acquainted with state of the art ornithology and to meet ornithological celebrities from all over the world. They also acted as guides on the field trips to good birding sites in the middle of the congress week. The Proceedings of the congress were edited by Voous and appeared in 1972.

Throughout the year 1970 Voous combined the functions of Secr.-Gen. of the IOC and Chairman of the Committee for N70. It may be that this colossal effort was too much for his health and in the first days after the completion of the manuscript of the proceedings he had to be taken into hospital. He recovered only slowly and never completely. As a consequence he had to retire as university professor in 1975. Five years later he gave a valedictory lecture exploring the changes in biogeography in the passed decades (Voous

1980). After his retirement he continued work from his home at Huizen, which soon became a well-known venue for many Dutch and foreign ornithologists.

Shortly before IOC XIV David Lack had made plea for stability in the sequence of bird lists (Lack 1966). The subject was discussed at length during the congress. Some ornithologists proposed to list genera and species alphabetically in faunistic and other publications, but Voous and many others felt that this would conceal any information about similarities and supposed relationships and make comparative studies more difficult. Three years later he suggested that it would be feasible to draw up a list of Holarctic species and he offered to undertake the job (Voous 1969b). At IOC XV the subject was discussed again and Voous felt to have obtained enough support to go forward and produce a list for the Holarctic. This list was intended to be simple and flexible, outlining systematic problems, but not imposing solutions. To win acceptance Voous tried to reach a common denominator of many published taxonomic sources. The various families and the species within these were arranged according to the best expert opinion available at the time. The list was published in three instalments in *Ibis* (Voous 1973 and 1977) and also as a separate publication by the BOU. By some, especially phylogenetic systematists, it was criticised for lack of a sound theoretical basis. However, it was widely followed, particularly in Europe. The list became quite influential as it served as basis for the sequence of species in both the German (Glutz *et al.* 1966-1997) and the British (Cramp *et al.* 1974-1994) handbooks and also for the species list of the European Union Bird Directive. However, Voous' hope that also the AOU Check-list (AOU 1983) would follow the same sequence remained idle.

After his retirement Voous increasingly began to shun large gatherings of people. He attended meetings much less frequently than before and when he did (as at the ornithological congresses from 1974-1986) he regularly took periods of rest. The last big gathering who saw him was the cen-

ennial symposium of the NOU, 12 May 2001, Amsterdam. Notwithstanding his shaky health, he used to work hard and methodically, and was able to produce papers and books in an almost unflinching stream. He completed, revised and published a manuscript on the birds of Sumatra of his late friend J.G. van Marle (van Marle & Voous 1988). One of his finest publications was, as he calls it, 'a work of love': '*Owls of the Northern Hemisphere*' (Voous 1988), a series of texts crammed with information written to accompany stunningly beautiful illustrations by Ad Cameron (chosen as Best Bird Book of the Year, *British Birds* 82: 450, 1989). Six times a year he contributed an interesting paper to *Vogels* (the journal of Vogelbescherming Nederland) to accompany a specially commissioned illustration. The first series treated all European birds of prey and owls (illustrations by Henk Slijper), the second a number of wetland birds (illustrated by various painters, the majority again by Slijper). Both series were later published as books. Seven more papers on finches and buntings appeared in 1991 and 1992.

His intense interest in the human being behind (or rather inside) the ornithologist had until then shown through in his many *In Memoriam* notes written for *Ardea* and *Limosa*. Now he felt free to try his hand at a much larger work. Conceived as a special issue of *Limosa* to commemorate the 75th anniversary of the Club van Nederlandse Vogelkundigen (1986), it soon outgrew the borders of the journal. He embarked upon a voluminous correspondence, writing his letters all by hand. Karel never had the ambition to harness the computer to his work. However, when the number of biographies continued to expand, information technology could not be evaded. He found expert help in person of Tineke Prins, his former secretary, now collection manager at the bird department of ZMA, who took care of the word processing. The book '*In de ban van vogels*' (Under the spell of birds) was edited by his former students Arnoud van den Berg, Cecilia Bosman and André van Loon. It appeared in 1995, dealing with 550 amateur and professional ornithologists born between 1823 and the end of 1949. Tineke Prins remained

involved in other work for him, also after the completion of the book. Four years later together they produced an index of bird species names for '*In de ban van vogels*'. She also catalogued his rich library. In Karel's last years, she formed an important link with the outside world. She helped him in publishing quite a few papers, often devoted to issues of conservation.

During his lifetime, professor Voous witnessed great changes in outlook in the science of systematics and zoogeography. He had always maintained that any character showing variation within or between species could contribute to the elucidation of the pattern of relationships underlying the similarities we observe. So he had no trouble in welcoming the study of biochemical characters, initially the electrophoretic comparison of proteins (e.g. Sibley & Ahlquist 1970, 1972), later several types of DNA studies. However, with his characteristic preference for a moderately conservative approach to classification, he did not approve of the changes in the sequence and extent of bird orders and families proposed by Sibley & Monroe (1990). On this issue he heartily agreed with the views of Mayr & Bock (1994) that the standard sequence of birds should not be replaced too quickly by provisional classifications, how interesting these might be in their own right.

There was another development which was rather at variance with Voous' nature. He had grown up in a time when all leading systematists worked under one and the same paradigm. Mutual respect for each other's research results was characteristic of the atmosphere. With the advent of a completely new approach, phylogenetic systematics, this stable situation was set adrift. New results were published in strongly worded papers, accompanied by attacks on the established opinions. This made it not easy for Voous to accept these results. It took quite some time before he could acknowledge that Hennig's (1965) lucid approach to the analysis of character distributions was of great help in unravelling relationships, particularly when there is an overwhelming amount of data, typical of DNA sequence studies. In addition, the wide-ranging species concept adopted in

Voous' atlas was replaced with more narrow concepts. Not all of these were based on the biological species concept of Dobzhansky and Mayr to which Voous had always subscribed. Some systematists were even advocating to drop the concept of subspecies altogether and to regard any well-differentiated geographical population as a separate species. Of course, this would have made his atlas work, which relied on mapping worldwide complexes of closely related forms, completely impossible.

In his personal contacts professor Voous was a quiet and friendly personality, accessible for anyone who had something to report about birds, but reserved about personal matters. Later in life he became more open and less reluctant to refer to his inner motives. He had a sound understanding of other people and he liked to observe human nature. Graphology was something of a hobby for him, but his views about someone's handwriting were only expressed in a small circle of trusted friends. Although he had a clear eye for other people's shortcomings, he was mild in his judgements. His biographies in 'In de ban van vogels' show little (some would say "too little") criticism of those described. Not that he did not have his likes and dislikes. In sticking to a chosen course or to a cherished opinion he could be very tenacious, even to the point of stubbornness. On the other hand, he was lavish in giving praise for any service done to him, scientific as well as personal. Innumerable are the letters of thanks and positive criticism written in response of books, reprints or reports he received from professionals and amateurs. He was all his life a prolific letter-writer. At the department he used to dictate these letters to his secretary. When he was interrupted by the phone in the middle of a sentence, he could resume dictating exactly where he left off, even half an hour before. He had a tremendous grasp of the ornithological literature. Even in advanced age, he read and digested many hundreds of scientific papers a year and brought them to bear on the work at hand.

In all respects he enjoyed hard work and was deeply convinced that the meaning of life consist-

ed also in being of service to others. He had a subtle sense of humour, but was not particularly keen on frivolities. At IOC XV he only reluctantly agreed to end the farewell party by a polonaise led by a concert band through the corridors and rooms of the conference centre. To his surprise, it appeared to be a great success going on into the small hours. Later quite a few congress members wrote to him that this had been one of the memorable occasions at The Hague.

A strong religious faith supported Karel. He was a staunch member of his local parish De Goede Herder (The Good Shepherd) at Huizen and both his wife and he functioned in various capacities on its council. In the seventies Voous tried to win over the leadership of the Netherlands Reformed Church to the conservation side. For some years he served on its Council for Church and Theology. His strong feeling for conservation was rooted in his firm belief that God, the Creator, had a right to count on man, created in His image, to take care of the richness of creation. In a paper written only a few years ago, he explored the significance of the biblical story of Noah's Ark as a source of inspiration for conservation.

Karel's wife Henny was the mainstay of his domestic life and his inseparable companion during their many travels abroad (West Indies, Surinam, Africa, Canada, Sumatra in Indonesia). When Karel's health was slowly failing him with advancing years, her help and her presence became increasingly important for him. Always cheerful, she gave cordial hospitality to all the ornithologists who came to Huizen for a meeting or a visit, occasionally going out for a meal in a nearby restaurant. She accompanied him when with help of friends he visited interesting birding spots. When Karel felt weak or ill, Henny took on the duty of nursing him. Always she kept a vigilant eye on his activities to make sure that he should not overstrain his physical capacities. Karel rarely complained. In the last two months handwriting became almost impossible owing to the tremor of his hands. In these days she also wrote his letters for him. It is Henny's merit that he could work until a few days before his death and that he could

stay in his own home to die in peace. The NOU and its members extend feelings of condolence and sympathy to her at the loss of her inspiring husband.

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HONOURS

- 1951 Corresponding Member Schweizerische Gesellschaft für Vogelkunde und Vogelschutz
- 1959 Honorary Member Royal Naval Bird Watching Society
- 1968 Corresponding Member Deutsche Ornithologen Gesellschaft
- 1969 Honorary Fellow American Ornithologists' Union
- 1969 Foreign Member Koninklijke Vlaamse Academie voor Wetenschappen, Letteren en Schone Kunsten van België
- 1971 Corresponding Member British Ornithologists' Union
- 1971 Honorary Member Australian Seabird Group
- 1972 Honorary Member Société Ornithologique de France
- 1973 Honorary Member Sociedad Española de Ornitología
- 1974 Honorary Member Nederlandse Vereniging tot Bescherming van Vogels
- 1975 Union Medal British Ornithologists' Union
- 1976 Honorary Member Nederlandse Ornithologische Unie
- 1981 Officer in the Order of the Golden Ark
- 1984 Honorary Member British Ornithologists' Union
- 1984 Bronze Medal Nederlandse Stichting voor Internationale Vogelbescherming
- 1991 Officer in the Order of Oranje-Nassau
- 1994 Honorary President of XXI IOC, Vienna, Austria
- 1955-1963 Part-time professor of Zoogeography, Free University, Amsterdam
- 1964-1975 Full Professor of Zoological Systematics and Zoogeography,
- 1946-1956 Honorary Secretary of the Nederlandse Ornithologische Vereniging (Netherlands Ornithological Society)
- From 1950 Member of International Ornithological Committee
- 1956-1966 Board of the Nederlandse Vereniging tot Bescherming van Vogels (Vogelbescherming, Society for the Protection of Birds)
- 1957-1981 Honorary Editor *Limosa*
- 1957-1983 Chairman of Commissie voor de Nederlandse Avifauna (CNA, Rarities Committee)
- 1962-1991 Honorary Editor *Ardea*
- 1962-1974 Member of the Board of Stichting Natuurmonument De Beer
- From 1962 Member of the Standing Committee for Ornithological Nomenclature
- 1964-2002 Honorary Research Associate Zoological Museum Amsterdam
- 1964-1991 Member of the Natuurwetenschappelijke Commissie van de (until 1968 Voorlopige) Natuurbeschermingsraad (Scientific Committee of the Conservation Council),
- 1966-1972 Secretary General of XV International Ornithological Congress
- 1966-1997 Editor of Handbook of the Birds of Europe, North Africa and the Middle East/The Birds of the Western Palearctic
- 1966-1982 Member of the Standing Committee for the Coordination of Seabird Research
- 1970 Chairman of Netherlands Committee for European Conservation Year 1970
- 1970-1978 Member of Executive Committee of the International Ornithological Congresses
- 1972 Chairman of the Commissie voor de Fauna-bescherming van de Natuurbeschermingsraad (Committee for the Conservation of the Fauna)

Appointments and honorary offices

Appointments and honorary offices

- 1939-1947 Assistant at the Zoological Museum Amsterdam
- 1947-1963 Curator of Birds at the Zoological Museum Amsterdam
- 1950-1963 Deputy Director of the Zoological Museum Amsterdam

Until 1985 Member of the Commission on Ecology of IUCN

1974-1999 Chairman of the Board of Stichting P. A. Hens Memorial Fund

Professor Voous was involved in the beginnings of the World Wildlife Fund in the Netherlands and was also member of the following councils and committees: Natuurbeschermingsraad (Conservation Council), Netherlands National Section of the International Council for Bird Preservation (ICBP), Contact-Commissie voor Natuur- en Landschapsbescherming, Amsterdamse Natuurhistorische Raad (Amsterdam Council for Natural History), Werkgroep Vogels en Zoogdieren of the Commissie Nevenwerking Bestrijdingsmiddelen (Working group for birds and mammals of the Commission for the Side Effects of Pesticides) and Raad voor Zaken van Kerk en Theologie van de Nederlandse Hervormde Kerk (Council for Affairs of Church and Theology)

Books published by K.H. Voous

- 1955 De vogels van de Nederlandse Antillen / Birds of the Netherlands Antilles / Met 22 platen van H.J. Slijper Uitgaven van de "Natuurwetenschappelijke Werkgroep Nederlandse Antillen", Curaçao, No. 5.
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- 1986 Roofvogels en uilen van Europa. E.J. Brill/Dr W. Backhuys, Leiden.
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- 1992 Moerasvogels van Europa. Thieme, Baarn
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Book-size publications

- (not listed as 'real' books in his autobiography; Voous 1995)
- 1947 The history of the distribution of the genus *Dendrocopos*. Drukkerij en Uitgeversbedrijf Firma Ponsen & Looijen, Wageningen.
- 1950 Bierman W. H. & Voous K.H. Birds observed and collected during the whaling expeditions of the "Willem Barendsz" in the Antarctic, 1946-1947 and 1947-1948. E. J. Brill, Leiden (also published as *Ardea* 37 (Extra nummer): 1-123).
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