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Georg Haas, 1905-1981

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## EDITORIAL NOTES AND NEWS

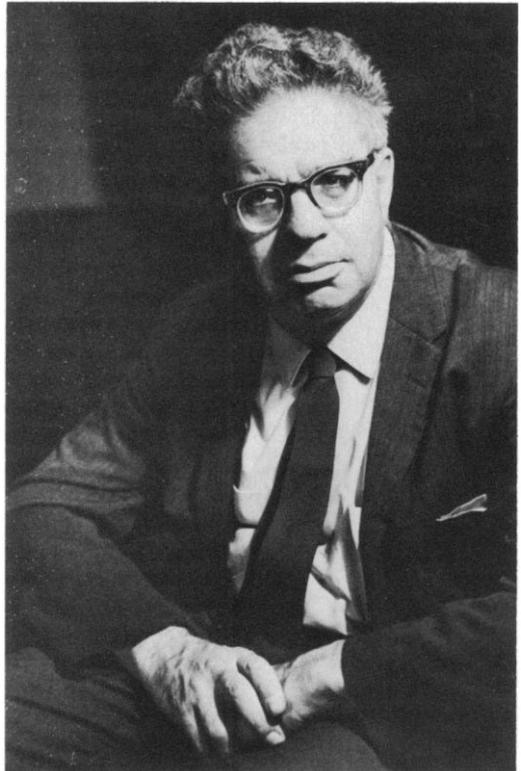
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### Georg Haas 1905-1981

IT seems impossible to describe and explain the life and work of Georg Haas, late Honorary Foreign Member of ASIH and Professor Emeritus of Zoology at the Hebrew University of Jerusalem, within the scope of a conventional obituary. Professor Haas, or George, as he was called by many Americans, died unexpectedly in his sleep, in Jerusalem on 13 Sept. 1981. Next to his bed was a suitcase, packed in readiness for yet another of his near-annual journeys to Switzerland. Besides the conventional traveler's outfit, the suitcase contained a small but precious heap of manuscripts, notes and photographs. These mainly related to the last and most sensational of his research subjects, the snake-like fossils of 'Ein Yabrud which he had been looking forward to discussing in Zürich with his young friend and pupil-turned-colleague, Olivier Rieppel.

Thus active to the last day, Haas had during a fruitful lifetime researched in many diverse herpetological fields. His scientific achievements were recognized by the Rothschild Prize (1964), membership in the Israel Academy of Sciences and Humanities (1966), Honorary Foreign Membership in the American Society of Ichthyologists and Herpetologists (1974) and Honorary Fellowship in the Zoological Society of Israel (1979). Although his interests embraced ichthyology and other zoological branches as well, besides several unrelated areas of human culture, my comments here will be herpetologically biased.

Georg Haas was born in Vienna on 19 Jan. 1905. After his education at the humanistic Gymnasium, Haas studied zoology and paleontology at Vienna University. His teachers there included several widely known professors; among them were herpetologists Franz Werner and Otto Wettstein. In 1928, he obtained his PhD, then published eight papers, totalling 400 pages, on the functional cranial anatomy of primitive and venomous snakes (1929-1932). Haas was to continue, off and on, working on the anatomy and evolution of the reptilian head, till this work culminated in his 200-page



review in Gans' *Biology of the Reptilia* (1973)—his 22nd paper in this line. During 1931-1932, Haas continued his studies in M. Hartmann's Department at the Kaiser-Wilhelm-Institute, Berlin working on protozoans and their cytology and producing the classic paper on the cytology of *Ichthyophthirius* (1933).

In Oct. 1932, Georg Haas joined the staff of the budding Hebrew University of Jerusalem in the British Mandate of Palestine. Although he had been invited there by F. S. Bodenheimer, he had been advised to make this move by some of his Viennese professors, who had become aware of the growing anti-Semitism. Haas was to continue working at the Hebrew University till his death, attaining full professorship in 1954.

Palestine was an exotic land; its fauna begged to be studied. As early as 1935, Haas authored

a review chapter on the fauna in the second edition of Vilnai's Palestine Guide, published by Steimatzky. He expanded into local malacology, on which he published five papers (1937–1955). He started a mollusc collection, which was later to attain international importance through his talent for eliciting major donations and bequests. He also used local resources to continue his work on cranial anatomy. Thus his reports on *Ablepharus* and *Chalcides guentheri* (1935–1936), *Chamaeleo* (1937–1947) and later on primitive snakes.

In 1936, Haas, with O. Theodor and H. Mendelssohn, undertook his first expedition through parts of Transjordan, the Negev and Sinai. Two reptiles were added to Israel's herpetofauna, *Tropicolotes steudneri* and *Leptotyphlops macrorhynchus*, and *Pristurus flavipunctatus guweirensis* was described from Transjordan (1943). Until 1961 Haas published ten additional papers on reptilian novelties of Israel and adjacent countries. The fifties were particularly exciting and saw the description of *Atractaspis engaddensis* brought by Mendelssohn from 'En Gedi (1950), the distinction between *Eremias guttulata* and *oliveiri* and the description of *Agama stellio brachydactyla* (1951), and the long perplexing distinction between *Stenodactylus petri* and *S. (Ceramadactylus) doriae* (1956). In 1951, Haas published his review of local herpetofaunal research, which has not yet been superseded, and in 1952, published in Turkey, with the help of C. Kosswig, the classic analysis of the zoogeographic origins of the herpetofauna.

In the course of his herpetological activities, Haas developed a collection which, besides the material from Israel and the Near East, represents all major higher taxa and major regions of the world. Currently it approximates 15,000 catalogued specimens. Haas attached much importance to bringing foreign scientists to visit Israel and speak to the students. In Sept. 1953, he proudly hosted K. P. Schmidt. Among his numerous visitors, some of whom came repeatedly, were C. Gans, I. Griffiths, M. K. Hecht, L. Landmann, D. Senn and R. Wasserzug.

A last fling at herpetology was taken when he coauthored (something he rarely did) the report on reptiles collected by Henry Field in southwestern Asia (1969). As we embarked on the description of *Eremias brevirostris fieldi*, he boldly picked from the series a largish male and said, "This looks characteristic so we shall make

it the type. Let me dictate to you its description . . ." I obeyed under protest, for I believed that a type should only be chosen after the pholidosis and other characters of the whole series had been checked. But when I later did so, duly following the steps outlined in Mayr, Linsley and Usinger (1953), I ended up with the same specimen!

Although he engaged in it infrequently, Haas appreciated field work. When he and others revised the teaching of "faunistics" at the Hebrew University in 1963, he (with J. H. Hoofien and myself) led a student field trip to the Negev, on which occasion *Testudo kleinmanni* (long thought locally extinct) was rediscovered.

The objective which, more than anything, stimulated Haas to embark on excursions, was the collecting of fossils. Following upon his first paper on the small mammals of the Umm-Qatafa cave (1951), he became increasingly addicted to paleontology. Ultimately, it accounted for 32 of his 77 publications. For paleontological preparation and other matters, Haas depended most heavily on his devoted and expert technician and factotum, Mary Rosenthal, whom he never tired of praising.

Initially, Haas worked much on fossil mammals, especially from the Pleistocene of 'Ubeidiya, but his main paleontological work concerned reptiles, beginning with the reconstructions of the jaw muscles of *Protoceratops* (1955) and *Diplodocus* (1963). He led or sent many excursions to the Triassic of Wadi Raman (later Makhtesh Ramon) to gather fossil fragments from the surface. This activity revealed a fossil fauna comprising at least eight types of reptiles, as summarised in the last paper which reported on the discovery of a *Simosaurus* and which appeared posthumously (1981). The Makhtesh Ramon fossils attracted many visiting dignitaries to Israel, including the well known paleontologists F. Brotzen, E. H. Colbert, E. Jarvik, H. Schäfer, E. A. Stensiö and F. Westphal.

After 1967, the Lower Cenomanian quarries of 'Ein Yabrud near Ramallah again became accessible. Haas had already described a large plesiosaur vertebra from the Cenomanian near Elat (1958). In the beds the fossil fish fauna of 'Ein Yabrud was so rich and alluring that Haas, who had left ichthyology after 1946–1947, yielded to temptation and, at the age of 75, embarked on a paleo-ichthyological project, on which he read a paper before the Israel Academy of Sciences shortly before his death.

Besides the multitude of fossil fishes, there were also reptiles, and Haas described two new fossil species of the extant pleurodire turtle genus *Podocnemis* (1978); some remains of largish saurians await study. But undoubtedly the most important finds are those of three different snake-like reptiles, each with its own unique combination of ophidian and saurian characteristics, including limb vestiges. Haas, who had begun his career with cranial anatomy and its phylogeny within the ophidians, was thrilled to tackle the evolution of the group. He only lived to accomplish the description of one species (1979–1980) and the initial description of the second (1980).

Georg Haas was much more than a zoologist or scientist; he was a personage in every sense of the word. Although often pessimistic and prone to criticism, he had a good sense of humour, enjoyed puns in several languages, limericks and jokes, and occasionally indulged in pulling one's leg. His varied fields of interest and expertise extended far beyond his astounding knowledge of all animal groups. He knew much more about the least expected subjects, such as biochemistry or politics, than he usually revealed. He was an amateur botanist and avid cactus grower, a lover of music, a gourmet cook and sampler, a connoisseur of art and collector of coins. He liked philology and enjoyed reading history and occasionally read original Greek and Roman texts to groups of students who visited him. He photographed much and drew giftedly, though almost exclusively to illustrate his publications and lectures.

Haas liked to teach and lectured well, indeed inspiringly, despite having had little patience with ignorant questions or boorish replies. Even after his retirement in 1976, he continued to teach on popular demand. He was famous for making anatomy spring alive not only by his marvelous drawings on the blackboard, but also through convincing demonstrations with his body, apparel or handkerchief. Hundreds of students remember his broad features and deep voice as he would say, "Now, imagine that I am a young amphioxus . . ." Indeed, although Georg Haas never had a family and is survived by two brothers and two nieces, his spiritual progeny are legion. Most leading or active Israeli zoologists and many scientists in related fields are his pupils, or the pupils of his pupils. YEHUDAH L. WERNER, *Department of Zoology, University of Jerusalem, Jerusalem, Israel.*

Report from Mindanao—I have just completed a rapid collection of fishes in Sabah (east Malaysia), Palawan (Philippines) and Mindanao. Collections in Mindanao (9–21 Jan. 1982) included Lake Dapao, Lake Lanao, the Cabasaran Stream and the Linamon River. The primary purpose of my fieldwork was to obtain live material to investigate the evolutionary biology of the endemic cyprinids of Lake Lanao (Myers, 1960; Reid, 1981). I offer below observations and impressions from my travels in Mindanao. It is noteworthy that some of my findings differ from information previously available.

For the past 20 years, the fauna of Lake Lanao has experienced major changes which have increased with time and will accelerate in the future. The commercial catch of both endemic and exotic fishes has declined by an order of magnitude since the first reliable market survey in 1963 (Villaluz, 1966); diversity has decreased in a parallel manner. Of the eighteen endemic cyprinids described by Herre in the 1920's (Herre, 1933), seven species, including representatives of three endemic genera, were noted during 1973 (Sanguila et al., 1975). The most recent survey (1977) reported six endemics, three in very small numbers, and no endemic genera (Escudero et al., 1980). My inspection of the catch at the Marawi City fish market revealed the presence of only a single cyprinid, *Puntius sirang*. I was informed, however, that one additional species had been marketed in previous weeks. Additional conversations with fishermen and local personnel of the Bureau of Fisheries and Aquatic Resources (BFAR) were equally dismal: no additional species had been seen in at least a year.

Fortunately, a fraction of the diversity decrease may be more apparent than real. Because of the generally low absolute abundance of Lanao fishes, relatively rare species may never reach the market, but may instead be locally sold and consumed. Moreover, the commercial fishery employs only a few selective types of gear, particularly large mesh gill nets. Commercial operations, in addition, are usually confined to a limited number of possible localities and habitat types. From personal collecting and collecting done for me by individual fishermen (provided with financial incentives), I have obtained cyprinids tentatively assigned to six endemic taxa: *Sprattlicypris palata*, *Puntius amarus*, *P. lanaoensis*, *P. lindog*, *P. sirang* and *P. tumba*. It is significant that all people involved in fishing with whom I spoke believed that several of