

Through these efforts, and her generous willingness to spend time with students and interested members of the general public, she engendered considerable public support for the museum.

Although she never discussed any details, as a woman scientist in a man's world, Hildegard undoubtedly faced many obstacles in her scientific career, beginning with being banned, as were all female students at that time, from class field trips in her early years at UCLA. However, as she became the leader in her field and an internationally recognized and respected scientist, she became a prominent role model and inspiration for women students seeking to enter the scientific professions. The fact that she rose to serve for a decade as the chief scientist at the Natural History Museum is testimony to her outstanding abilities.

In the words of Jean Delacour, ornithologist and Director of the Museum for 9 of the 10 years when Hildegard served as Chief Curator for all sciences, "I sincerely believe that no one could have done it better; her experience, her authority, and her understanding of people and problems were perfect."

I came to know Hildegard personally only late in her career, when I took up a position as

a Curator at the Natural History Museum in 1977. As I was preparing to leave the University of Florida to come to Los Angeles, I asked my mentor, the late Pierce Brodtkorb, if he had any suggestions for projects I might undertake in my new position. Without a moment's hesitation he replied, "Organize a festschrift like the one we just did for Alex Wetmore. She, of all people, really deserves such a tribute." The sincerity in his voice typified the high esteem for Hildegard and her long devotion to paleornithology that was shared by all her colleagues. Looking back, I now know it was the high regard for Hildegard that brought that festschrift together and led the numerous contributors to overlook the many missteps of a first-time editor. That volume, *Contributions in Science, Natural History Museum of Los Angeles County* No. 330, may be consulted for a more detailed biographical and bibliographical sketch of Hildegard and her works.

A brief overview of a career as long and productive as that of Hildegard Howard's can only hint at its depth and breadth. To survey her contributions to avian paleontology is to see a perfection of technique, the evolution of ideas, and a devotion to a science. As the 20th century's preeminent student of paleornithology, she served her chosen field well.

The Auk 117(3):779–780, 2000

IN MEMORIAM: JÜRGEN ASCHOFF, 1913–1998

PETER BERTHOLD

Research Centre for Ornithology of the Max Planck Society, Vogelwarte Radolfzell, Schlossallee 2, D-78315 Radolfzell, Germany

Jürgen Aschoff, a Corresponding Fellow of the AOU since 1976 and an Honorary Fellow since 1981, was born 25 January 1913 in Freiburg, and died there on 12 October 1998. The son of a world-renowned pathologist, Jürgen studied medicine at the University of Bonn, then moved in turn to Göttingen, Würzburg, and Heidelberg. He was primarily a physiologist and a pioneer in biological rhythms, but various circumstances led him to undertake bird studies. The more general physiological

and chronobiological aspects of his career have been commemorated in *Nature* 396:418 (1998) and *Journal für Ornithologie* 140:384–387 (1999); this memorial will emphasize his ornithological achievements.

That Aschoff developed an appreciation of birds as ideal research objects—not least for his own investigations of circadian periodicity—had six main causes. First, he learned from his close associate Gustav Kramer, who discovered the sun compass in birds, that birds compen-

sate for the sun's movement across the sky by reference to their endogenous circadian clock. This insight opened new perspectives for himself as a chronobiologist and initiated a collaboration with Kramer when both became Scientific Members of the Max Planck Society in 1958. Tragically, Kramer died within a few months, and the research had to be undertaken with other partners. Second, a number of scientists with ornithological interests assembled around him: Klaus Hoffmann and Eberhard Gwinner became assistant researchers in his institute. Third, after Kramer's death, Jürgen assumed the directorship of the Vogelwarte Radolfzell (after the end of its Rossitten era, it was incorporated into the Max Planck Institute for Behavioral Physiology, of which Aschoff's group was a part). This brought him into contact with Hans Löhr, Gerhardt Zink, Gerhard Thielcke, and myself, among others. Fourth, in 1955, in one of his most important reviews (on the annual periodicity of reproduction in warm-blooded animals), Jürgen had acknowledged the vast abundance and significance of ornithological data; at a mature age he became a committed "birdman" who even developed ambitions in the direction of field ornithology. Fifth, he found a source of encouragement in his admiration for men such as Donald Farner, Lars von Haartman, Konrad Lorenz, Niko Tin-

bergen, and for the inexhaustible efforts of thousands of volunteers who contributed to the field work. Sixth was the combination of his scientific brilliance and his Prussian ability to define and concentrate on a specific goal. Not only did these give impetus to major research projects of his coworkers, such as the "Warbler Program," the "Mettnau-Reit-Ilmitz Program," and the "Atlas of Song Bird Migration Project," but Aschoff himself took on responsibilities of importance both nationally and internationally. He was a major originator of the international conference for the "Co-ordination and Encouragement of Amateur Ornithology" that was held in Tring, England, and that produced far-reaching incentives and standardization. He also served from 1968 to 1973 as treasurer of the German Ornithological Society and contributed as Plenary Lecturer and Organizer to a number of International Ornithological Congresses, in particular to the 18th IOC held in Moscow in 1982, where he served as Chairman of the Scientific Program Committee.

The quintessence of Aschoff's ornithological achievements can be summarized as follows: as an outstanding scholar and world citizen, he helped to make the ornithology of his time a highly respected science, as did his close friend Donald Farner in the USA.