

Adelheid Studer-Thiersch

In memoriam: Adelheid Studer-Thiersch

Catherine King

We regretfully announce the passing of Adelheid Studer-Thiersch, a much respected and appreciated member of our flamingo community, on 18th June 2020, at 80 years of age. Adelheid was a pioneer in flamingo behavioural research, describing for the first time many ritualised behaviours important in flamingo communication and reproduction.

Adelheid's fascination with flamingos began more than 60 years ago, when she began observing them during an internship at the Basel Zoo in 1958. She received her PhD in 1966, under the supervision of Professor Konrad Lorenz, with her thesis entitled "Die sogenannte Balz der Flamingogattung *Phoenicopterus*, literally translated to "the so-called courtship behaviour of the flamingos (genus *Phoenicopterus*)", primarily based on her study of flamingos at Basel Zoo. Several publications on ethology of flamingos, including comparative analyses of breeding behaviours, resulted from her work. Adelheid continued studying the Basel Zoo flamingos, one of the most consistently successful breeding groups of flamingos in captivity, throughout her life. Her acute observation skills, many viewing hours and her familiarity with each flamingo in the group resulted in recording numerous unusual behaviours, for example un-paired male flamingos acting as a helper in feeding the secretion normally provided only by the parents to nourish a particular chick.

Adelheid created partnerships between Basel Zoo and research facilities, leading to insights in many aspects of flamingo morphology, phylogeny, physiology and ecology. Much of our knowledge about the secretion fed by the parents to chicks is a result of investigations that she drove and participated in. More recently, observations of feeding flamingos at Basel Zoo has been used to interpret feeding strategies studied in the Camargue, and her work has clearly demonstrated how study of captive flamingos can benefit our understanding of the biology of flamingos generally.

Adaptations of flamingos to irregular breeding conditions intrigued Adelheid, and she identified many physiological and behavioural patterns in her studies at Basel Zoo that would benefit such a breeding strategy under natural conditions. For example, she observed that the nesting flamingos in captivity form smaller groups that perform breeding displays together and then nest together. Breeding synchronization has several benefits, including reducing fighting between neighbours, thereby reducing egg loss and energy expenditure. Unfortunately, Adelheid was not able to demonstrate that the small groups of greater flamingos displaying together in the wild were the same individuals that then bred together during her study of reproductive behaviour of greater flamingos nesting in Spain because of the paucity of tagged individuals. Hopefully with increased marking of flamingos in colonies in situ, someday her hypothesis will be validated.

Adelheid's understanding of the needs of the Basel Zoo flamingos led to changes in their enclosure and their management, resulting in the high and consistent breeding success. A new enclosure, incorporating her ideas, was constructed in 1990 and the layout of this enclosure still serves as a model for other zoos wanting to house flamingos in optimal conditions. Basel Zoo has been a leader in studying the problem of foot lesions in captive flamingos, developing possibly the first lesion scoring system, and later showing unequivocally how much and how quickly lesions can be affected by substrate. Adelheid served as an active advisor to the European Association of Zoos and Aquaria (EAZA) Ciconiiformes and Phoenicopteriformes Taxon Advisory Group, and her presentations at various meetings as well as her

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publications have been helpful to many zoo professionals in improving captive management of flamingos.

In contrast to her work with flamboyant flamingos, Adelheid also spent much effort in recent years to protect a non-descript beetle endemic to a small site along the Basel railway. During her life she also studied a variety of other animals as well, including fairy terns in the Seychelles, and she acted as scientific supervisor during a series of films on nature in that country. She was co-editor of the publication "Der Ornithologische Beobachter" between 1960-1975 and served as editor of the Annual reports of the Basel Ornithological Society between 1987-1998. A passionate birder, Adelheid had a habit of watching the sky rather than the path in front of her, resulting in several accidents, including a broken collar bone!

Home life for Adelheid was intertwined with Basel Zoo, as she lived next to the zoo much of her life, allowing her to pop down to observe the flamingos at will. Her husband, Dr Peter Studer, first a fellow student interning at the zoo, became curator for the aquarium and later director of the zoo. Her family was an important element in Adelheid's life. Insightful descriptions of her two sons and later five grandchildren's personalities were characterised by her appreciation of them and her sense of humour.

I was thrilled to finally meet Adelheid for the first time at the XXV International Ethological Conference in Vienna in 1997, as I had avidly read every one of her publications relating to flamingos that had appeared in English, and had tried to glean what I could with my rudimentary German from the others. That meeting resulted in my travelling to Basel for several years thereafter to record copulation behaviour of flamingos in the Basel colony. Adelheid and Peter shared their home and the charms of the city of Basel with me, and I will never forget their generosity and kindness in those years. I will also never forget the instructive and thought-provoking conversations we had about flamingos and I am very grateful for all the insights that Adelheid shared. She also graciously presented me with her second copy of the much coveted book "Flamingos", published in 1975, and I think of her every time I open it.

Adelheid was a good listener, eager to hear about the ideas and observations of others who shared her passion for flamingos. She never stopped observing, learning and reinterpreting her conceptions as her knowledge grew throughout her life, and was always pleased to share her experiences if these were useful to someone. Adelheid definitely deserved her award recognizing her lifetime of dedication to flamingo conservation and research given during the last international Flamingo symposium held in 2014. It was an award richly deserved.

Anyone wishing to make a donation in her honour can select from two organizations that she chose:

Zoo Basel: Binningerstrasse 40, 4054 Basel, IBAN: CH68 0900 0000 4000 7096 0

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