

The Ladyslipper and I

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Cover and page ii image: G. Ledyard Stebbins leads a field trip through
Carson Pass, California, circa 1967, as president of the California Native Plant Society.
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G. LEDYARD STEBBINS

The Ladyslipper and I

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Foreword by Vassiliki Betty Smocovitis

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Foreword

The Ladyslipper and I is a previously unpublished autobiographical manuscript left behind by George Ledyard Stebbins at the time of his death in 2000. A botanist in his formal training, Ledyard Stebbins's career began in 1929 while he was still a student at Harvard University, with his first publication on the flora of Mount Desert Island, Maine, an area he had explored as a child. His career rapidly grew to encompass fields beyond traditional systematics to include cytology, genetics, evolution, developmental morphology, and conservation biology, following the successive historical unfolding and development of these fields of inquiry along most of the 20th century. He made notable contributions to these areas, including the articulation of the polyploid complex; promoting an appreciation of the phenomenon of introgressive hybridization and its pivotal role in understanding evolution; and lending clarity to understanding of phenomena such as apomixis, polyploidy, and hybridization, and their interaction in plant evolution. In addition, he did the most to synthesize the disparate ideas, data, and opinions pertaining to a general theory of evolution in plants that was consistent with a general theory of animal evolution. In fact, more than any other botanist, he was the individual credited with serving as one of the founders of the "Neo-Darwinian," or "synthetic" theory of evolution that accommodated Mendelian genetics within the framework of Darwinian evolution. His major work, *Variation and Evolution in Plants*, which appeared in 1950, synthesized perspectives from a range of disciplines including plant genetics, systematics, population biology, paleobotany, and plant geography and was regarded as a path-breaking work of synthesis, still read widely and cited in the scientific literature (Stebbins, 1950; Solbrig, 1979; Raven, 2000). In addition to earning Stebbins the status of botanical architect of "evolutionary synthesis," it also served to inspire, if not launch, a new area of research known as plant evolutionary biology. The book also placed Stebbins alongside the ranks of major figures associated with 20th-century evolutionary biology such as Theodosius Dobzhansky, Ernst Mayr, George Gaylord Simpson, and Julian Huxley, some of whom were his close friends as well as good colleagues.

In short, his scientific career, which spanned much of the 20th century and engaged a number of new areas, made him an important figure whose reflections on science are interesting to explore in and of themselves, especially for anyone interested in botany, genetics, evolution, or the general history of 20th-century science.

Although the broad overview of his scientific life is missing from *The Ladyslipper and I*, specific research interests are discussed at length, though selectively, as are the varied plant groups that drew his attention as well as their admirers, many of whom were Stebbins' students, colleagues, or friends. As we might expect, plants do figure prominently in this book, and the title of *Ladyslipper and I*, which Stebbins chose in one of his last versions, appropriately thematizes Stebbins' own final retelling of his life. So too, does the inclusion of Stebbins' memories of his interactions with botanists and collectors, and his frequently humorous and colorful travails in finding plant locations. A skilled mountain climber and trekker, Stebbins loved to explore the nooks and crannies of mountains and fields, especially of California, which was his home for most of his adult life. He took frequent advantage of his botanically enriched environment with his family and friends, but also whenever he taught formal university-level courses. A popular teacher whose courses in botany and evolutionary biology at the Berkeley and Davis campuses of the University of California attracted hundreds of undergraduates, Stebbins included extensive field trips as part of the curriculum. He enthusiastically guided treks for keen California botanizers, especially if they were willing to rough it alongside him. It is said of Stebbins that he could accurately determine altitudinal elevation merely by examining the flora, a fact known to his colleagues, students, and

companions on his frequent field trips. One of the most important aspects that emerges in this retelling of his life is just how much the natural history of plant life mattered to him. This autobiography makes possible a renewed appreciation of Stebbins as a naturalist, collector, and indeed a world traveler who appreciated the diversity of plant life not just from an experimental or laboratory setting but from a staggering range of geographic vantage points. He was, after all, a pioneer of conservation efforts in California to preserve the native flora.

A skilled raconteur, Stebbins gives the autobiography a story-telling quality by opening with early memories of childhood experiences growing up in New York, Maine, California, and Colorado. A family of wealth and privilege, the Stebbinses traveled within social channels that offered abundant opportunities for young Ledyard in the way of leisure time, the best of educations, access to the artistic, scientific, and financial elite of American society, and a warm and nurturing environment that fostered his growing interest in natural history. George Stebbins Sr. (for whom Ledyard was named), as this autobiography suggests, was very much the embodiment of the masculine ideal at the time and a figure Ledyard clearly worshipped throughout his life. His stern, yet kindly Edwardian face, in a yellowed photograph, still hangs on the wall of the public library in Seal Harbor, Maine, where the family spent summers. Ledyard's mother, Edith Alden Candler Stebbins, remains a nearly invisible figure in Ledyard's life. His antics with his two siblings, especially his older brother Henry, and the details of their mostly happy childhood with their German governesses, animals, and schoolmates make for one of the more charming portions of this book. Stebbins' later educational experiences at Harvard's renowned but troubled botany department were fairly typical for graduate students at the time, but at his retelling make for an especially colorful depiction of the trials of becoming a botanist at Harvard amidst all the competing egos.

Yet another segment of the autobiography opens a new chapter in the history of genetics by introducing the reader to one of the most renowned departments, and indeed schools, associated with genetics in America, namely the Genetics Department at the University of California, Berkeley. Founded by Ernest B. Babcock, who led it with a vision that linked agricultural practice to genetics, the department in the 1930s and 1940s was a powerhouse of innovation and influence. Stebbins' account of his experiences with distinguished colleagues there serves as one of the first historical sources on that important institution as well as of his growing friendship with the Russian émigré Theodosius Dobzhansky. So too, Stebbins' transition to the UC-Davis campus allows the reader to follow the early but critical phase in the development of what is now regarded as one of the premier locations of plant biology and agriculture in the world. More than any other figure, Stebbins came to represent that campus of the University of California system at a critical time in its history. He served as the first chair of the Genetics Department at Davis and was responsible for building a world-class program. Gaining almost iconic status, Stebbins was featured in a famous portrait of him teaching students about plants in the field that came to represent the Centennial celebrations of the University of California.

Other facts about Stebbins' life emerge in this retelling: his love of music, song, and what he called "silly rhyme and verse," along with his keen interest in politics (he was a dyed-in-the-wool liberal), and his fondness for all the arts, which he shared with his second wife, Barbara Monaghan Stebbins, after they married in Davis in 1958. She was also instrumental in introducing him to the Unitarian Church, which they attended faithfully, and in keeping their homes in Davis and Berkeley the hubs of artistic, literary, and intellectual activity. A private person in some respects, Stebbins reveals little about his own immediate family life here, and the failure of his first marriage to Margaret "Peggy" Goldsborough Chamberlaine is only briefly discussed. His relationship to his children, outside of his hiking expeditions with his son Robert recounted here, remains obscure. The unexpected suicide of his younger son, George, is related only briefly with little in

the way of introduction or reflection. Ledyard remained reluctant to probe into this obviously difficult subject, and references to what was obviously a traumatic event are few and far between in other recollections or memoirs.

At the time of Stebbins' death at the age of 94 in his home in Davis, *The Ladyslipper and I* was the last in a series of autobiographical manuscripts that Ledyard Stebbins had drafted beginning as early as the 1940s. Autobiographical reflection was, in fact, a favored genre for Stebbins, who frequently employed it in his casual lectures, essays, and even manuscripts. A serious attempt at an intellectual autobiography dates back to the early 1940s with a long essay written for the benefit of his father (again demonstrating George Sr.'s formative influence on his son). Titled "The Objectives and Philosophy of an Evolutionist," it was a stunningly original work that included his belief in, and explanation of, the new synthetic theory of evolution. Written with the clarity for which Stebbins became known, it resembled Julian Huxley's own famous work heralding the "modern synthesis" of evolution and included a similar skillful weaving of science, ideology, and worldview in the context of World War II (Huxley, 1942). Sadly, that manuscript has never been published, though an original copy is still in existence.

Other manuscripts that appear to be drafts of his autobiography rewritten over the years remained at the time of his death. Some are in fragments while others include intact chapters or chapters in progress. One version stands out in particular: a carbon copy of a typed manuscript on old "onion skin" paper, which includes several lengthy chapters describing his early life and experiences as a child. It is a delightful rendering of class and privilege at an earlier epoch in American history, and especially so to those interested in Ledyard's early years. There is an especially graphic description of young Ledyard treated by a professional "alienist," or what would now be a psychiatrist, for his celebrated temper tantrums that he began to manifest as early as three years of age. Regrettably, subsequent versions of his autobiography entirely delete or abbreviate these detailed chapters of Ledyard's early life.

At least two other titles were used by Stebbins before the final title of *The Ladyslipper and I*. In a manuscript dated to approximately 1975, Stebbins used the title "Descent from the Ivory Tower." It was subsequently entirely rewritten and substituted with a shorter essay titled "Getting There Is Half the Fun," which was drafted in the mid-1980s and circulated widely to his friends and colleagues in photocopied form (my own copy was dated 1987). In the early 1990s, as his health was giving way, Stebbins completed a manuscript closely resembling the final version and began titling it *The Ladyslipper and I*. By that time, he had been influenced by my work on his biography, and an oral history that I had taken. Curiously, aspects of his life as he retold it began to resemble my own biographical rendering, giving his life the continuity and context only possible in a biographical narrative written by someone else. At times, *The Ladyslipper and I* even echoed the rhythm and transitions of my biographical treatment, going so far as to echo particular phrases or words. In an interesting example of the melding of biography and autobiography, Ledyard began to rethink the context of his own life as his biography developed (Smocovitis, 2007).

His attempt at publishing that manuscript in the 1990s failed, though it did not deter him from revising it and sending it out to his friends for critical reading. As his eyesight was failing, he grew even more desperate to complete the manuscript, finally relying on Rose M. Rutherford, his caregiver, to enter points of clarification or changes he wished to make on a then-electronic version of the manuscript. One of my memories of Ledyard's last days was of his trying to remember names, dates, and places he had visited in an attempt to complete the final version of his manuscript. A final, rough version was indeed delivered to the Missouri Botanical Garden Press in 1999 shortly before his death. Reading what became his final draft, I was interested to see a number of chapters he included toward the end that lapsed completely into the then-contemporary issues in plant molecular biology. Breaking entirely from the narrative thread he had

been weaving up to then, Stebbins launches into an attempt to summarize and critique available understanding on a range of complex subjects. It makes for a fitting ending for someone who could not stand to be too far removed from the current literature in science.

The draft submitted to Missouri Botanical Garden Press was Ledyard Stebbins' final version, but it nonetheless required editorial work, as a number of inconsistencies had been introduced in later drafts. But while edited by three individuals — Victoria C. Hollowell, Eileen P. Duggan, and myself — the published autobiography remains nonetheless a work that speaks clearly with Ledyard's voice. Indeed, reading it once again in the final form included here, one can distinctly hear it retold with Ledyard's crisp, upper-crust New England accent; much as it is written, he always spoke in perfect paragraphs with scarcely a breath taken between them. Here thus, is the very final version of an autobiography by one of the major figures in the history of botanical science whose life is clearly worth retelling.

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Editors' Notes

Ledyard Stebbins presented us with an urbane and literate narrative, weaving threads across both his personal and professional lives. As editors, our intent was to retain his distinctive voice, conversational tone, and storytelling style with minimal intrusion.

Therefore, footnotes were inserted only to clarify names or to provide context about the personalities or literature contemporary to the narrated event. Victoria C. Hollowell and Vassiliki Betty Smocovitis authored most footnotes, and their initials, VCH and VBS, appear accordingly at the end of these footnotes.

Identification of the plant and animal taxa can be found in the Index of Flora and Fauna (page 169). Other scientific terms, people, and notable organizations, places, and events mentioned in the text can be found in the Index except Flora and Fauna (page 163).

As suggested in the Foreword, memory can play tricks after several decades, and the multiple drafts of this autobiography naturally introduced typographical and editing errors. While striving to retain Dr. Stebbins' original intent, we verified details and historic facts and refined unclear passages. A number of people deserve acknowledgement for their assistance in checking these names, dates, and other facts. We are grateful for the contributions toward the book's accurate perspective by the following individuals:

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