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# MERRITT LYNDON FERNALD

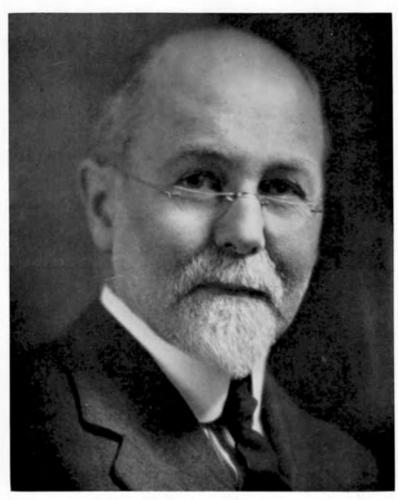
1873—1950

A Biographical Memoir by ELMER D. MERRILL

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Biographical Memoir

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Merrit L. Formard

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BY ELMER D. MERRILL

It is seldom that a boy of high school age really knows exactly what field he wishes to select for his life work. Yet with Fernald we have a positive case. As a boy he had developed such an intensive interest in botany, during and preceding his high school years in Orono, Maine, that at the age of seventeen he desired to make botany his life career. Considering the fact that at that time (1890), outside of the actual teaching of botany, there were not a half dozen full time positions in all of our institutions specifically created and supported to maintain the type of work in which this young man was interested, it is noteworthy that his first published paper of 1890 immediately attracted the attention of the one man in America who was in a position best to judge its author's promise. In 1890 such botanical positions as were available in the United States were essentially teaching ones, and then as now most botanical teachers, after taking care of their classes had little energy left to prosecute much research work. There were a very few exceptions here and there. The great development and diversification of botanical research in the United States came mostly within the present century. With this increase, research positions, as distinguished from merely teaching ones as such, were created all over the country. The result was a great proliferation in the plant sciences, including the development of entirely new disciplines such as genetics, cytology, cytogenetics, ecology (including much so-called ecology which was merely sugarcoated systematic botany) and other specialized fields, many of them never heard of at the end of the nineteenth century. With the development of the sometimes not too intelligent interest in the new subjects came a gradual decrease in the support of pure taxonomy. Thus by the middle of the present century the laboratory trained groups were in the ascendancy, and taxonomy, which is basic to all other disciplines in plant science, whether the devotees of these disciplines realize it or not. was in a very severe decline. This decline will inevitably continue for some years until a proper reassessment and evaluation is made, and a proper balance is reached.

In 1890 in the field of young Fernald's interest, a little work was being done in Washington, New York, Philadelphia, and in a few other centers in the country. For all practical purposes, however, the Gray Herbarium of Harvard University stood practically alone, yet at that time its assured income was very small. For the most part such botanical work as was then being accomplished in North America was not so much due to governmental and institutional policies and support, as to the fact that there were a few individuals who were keenly interested in field and herbarium work for its own sake. Their work was more often personally supported, rather than maintained by funds provided by the institutions with which some of them were connected. This was, in brief, the botanical situation in the United States when our account of M. L. Fernald opens.

The subject of this sketch was born in Orono, Maine, October 5, 1873, and died at Cambridge, Mass., September 22, 1950. His father, Merritt Caldwell Fernald, was the first and third President of the small Maine State College of Agriculture and Mechanic Arts at Orono (1869-71, and 1879-93), which became the University of Maine in 1808. His mother was Mary Lovejov (Heyward) Fernald. Of the five children in the family two became well known scientists, one a chemist and the other a botanist. Young Fernald prepared for college at the Orono High School and entered the State College as a freshman in the fall of 1800. Fernald was not destined to continue in residence there for even his first year of college work. Because of his keenness as a budding field botanist, as evidenced in his early letters to Sereno Watson, and his first published botanical paper of 1800, Watson, then Director of the Gray Herbarium, became interested in him. On February 4, 1891, he wrote to young Fernald, expressing his appreciation of the intelligent interest that the latter showed in plant problems. While indicating that he had no idea as to what Fernald's plans for the future might be, or how far he was advanced in the educational field, he stated: "As a venture I would say that if a career as a botanist has attractions for you, there is an opportunity here for a young man who is

willing to begin at the bottom and work his way upward. . . . If such a position has any attraction I shall be glad to hear from you."

On February 7, Fernald's father expressed some surprise at Watson's offer, as his son was then only seventeen years old. The boy, however, had no doubts, for writing to Watson on the same day, he stated that the opportunity certainly did attract him, for: "I think the one thing which I was made for was a botanist, as from early childhood my inclinations have been in that line." A month later his father took him to Cambridge where he became a helper in the Gray Herbarium with an opportunity to continue his college career on a part time basis. His connection with that institution was to continue throughout his life, successively as Instructor, Assistant Professor, and Fisher Professor of Natural History, joining the Emeriti in 1947; but in the interim also serving as Curator of the Gray Herbarium. 1035-37, and as its Director for the next ten years. Thus it was his privilege to work continuously for sixty years, in a single institution and in a field that he had selected for a life career. This opportunity was an unusual one of which he took full advantage both as to the best interests of the institution itself and to his own remarkably productive career. He was incidentally an outstanding teacher, taking full part in the general teaching program of Harvard University, and attracting to the institution an unusually large number of graduate students who, not so much as subsidized individuals but rather on their own initiative. elected to matriculate at Harvard for graduate work in order to benefit from Fernald's vast knowledge of taxonomy and allied subjects. They made no mistake in selecting him as their major guide. The number of paid assistantships, fellowships and scholarships were few in botany, and the demand was great. record in training future leaders in taxonomy is a remarkable one, and through them his name will continue to live on.

In September 1891 he entered the Lawrence Scientific School of Harvard University. He was graduated in 1897 magna cum laude with the degree of Bachelor of Science. During this period he worked half time at the Gray Herbarium, taking normally two academic courses each semester in Harvard College.

This was his only earned degree, although honors came to him in later years in the honorary D.C.L. from Acadia University in 1932, and D.Sc. from the University of Montreal in 1938.

His attitude towards formal advanced training, as expressed in his own words, with which some of us will agree is: "Practically my whole life (beginning in young school days, is a demonstration of my belief that natural scientists are born, not captured, and made in the laboratory—the place which usually deadens such interest) has been devoted to an intensive study of the higher plants (the flora), of temperate eastern North America, and an attempt to correlate distribution of the flora (and incidentally the fauna) with the geologic history of the area."

There was so much that claimed his attention when he received his B. S. degree in 1897 that he apparently did not consider it worth while to spend several years in graduate work to obtain the doctorate degree, the measuring stick by which individuals are judged by the directorates of so many institutions in this day and age, and considered to be the sine qua non for even a beginner. To Fernald, who knew what he wished to accomplish, and who had received the essential basic training, three years as a graduate student apparently impressed him as a waste of time. Undoubtedly he learned infinitely more botany as a part time assistant in the Gray Herbarium, 1891 to 1897, than he did in all of the formal courses he was required to take to complete the requirements for the basic degree, or would have learned as a full time graduate student. This is an excellent illustration of his independence, for he knew his objectives, and what he wished to accomplish. As a matter of fact, without the advanced degree, he proceeded infinitely farther than do the vast majority of the now great host who glory in the possession of the doctorate title. Few Americans in any field of plant science can match his accomplishments, and for the vast majority of those who earn the advanced degree, too often their published thesis is their only contribution to the literature of their profession.

Fernald was a voluminous writer, and his always critically prepared published contributions approximate eight hundred thirty or eight hundred ninety depending on how one evaluates titles and subtitles, as in the contributions from the Gray Herb-

arium series. Most of his work was on the flora of the region that has come to be known as the "Manual range," that is, those parts of the United States and Canada north of the southern boundary of Virginia, westward to approximately the position of the Mississippi River, and northeastward to the Maritime Provinces and Newfoundland. This, historically, with slight modifications at times, has been the range of Gray's Manual from its first edition in 1848, to the eighth or centennial edition, 1950. The latter is Fernald's work, and it was issued a few months before its author died.

To the preparation of this last edition of Gray's Manual he devoted a great deal of his time and energy during the past four decades of his life, first in preliminary work, and for the last fifteen to twenty years in the actual preparation of the text itself. He had been co-author, with B. L. Robinson, of the seventh edition of that standard work which appeared in 1908. Here his genius had manifested itself, for there is very little in common between the seventh and the preceding six editions, the Robinson-Fernald work, for all practical purposes being an entirely new book particularly in its arrangement and to a considerable degree in its content. All earlier editions had been largely compilations, for Grav was never a field botanist, and Robinson did no field work. In the last two editions is reflected the vast amount of critical field work accomplished by Fernald, with the assistance, in one form or another, of some 400 collaborators scattered over the entire area.

It seems worth while, here, to contrast the last three editions of this classical work in order to emphasize the significance of one of Fernald's major contributions to plant science. In 1890, in the sixth edition, 919 genera and 3,159 species were defined. Eighteen years later, for the same area, the corresponding figures were 1,001 genera and 4,079 species, with 806 entities subordinate to the species. Contrast these with the corresponding figures in the centennial edition of 1950, the personal field work of Fernald, for in this there are 1,133 genera, 5,523 species, and 2,817 entities subordinate to the species. This volume, Fernald's last major work, and the culminating one of his long botanical career, is by all odds, the most critical and searching

study in descriptive botany that has ever appeared on the flora of any part of North America. How time has justified Sereno Watson's judgment of a seventeen year old youth, whom he had not met when he offered him his first appointment in 1891, and how well did Fernald himself live up to his opportunities and thus vindicate his youthful belief that he was made to be a botanist!

It may seem strange to many productive systematists working on this or that little known flora, or engaged in monographic work, that Fernald should have selected an area which, a half century ago, was considered to be thoroughly well known from a botanical standpoint. Apparently even as early as 1890 Fernald, on the basis of his then very limited experience which had been restricted to a few localities in Maine, realized that much remained to be accomplished. At any rate he was not impressed with certain ideas that had become current earlier in the century that everything was known about the plants of the eastern United States. This idea dates back to Amos Eaton who in 1829 categorically stated that: "There is not, probably, 50 undescribed species of Phenogamous plants in the United States . . . perhaps not one species east of the Mississippi." With this, more or less prevalent, but utterly erroneous belief in mind, which in places persisted to the end of the century, compare the figures in the ultimate categories (species and minor forms) in the last three editions of Gray's Manual as above given. To a very large degree it was Fernald's own work that demonstrated the utter falsity of this strange idea.

With what is now happening in the botanical field, locally and elsewhere, one feels that no mere youth, no matter how promising he might be, and no matter what his personal interests were, could possibly be recognized by an appointment as a helper on the staff of a research institution at the early age of seventeen years and just as he was commencing his college career. It may be that figuratively Fernald was, in a botanical sense, "the last of the Mohicans," in that in 1950 there is no vestige left of the powerful group, beginning with Asa Gray in 1843, that built up and maintained the botanical prestige of Harvard University for just over a century. He left no real successor, which augurs ill

for the future of the types of investigations for which he stood, of which he was definitely the master, and on which his worldwide reputation rests.

It is suspected that when he penned the lines appearing in his Harvard class report in 1922: "consequently I am repeatedly forced to explain to the man in the street my failure to enter a money making profession . . . [because] I belong to that almost extinct species, the old-fashioned systematic botanist" he had some vague suspicion of some of the changes that were to occur within the next three decades culminating in the botanical debacle at Harvard University that immediately followed the implementation of the Irving W. Bailey report in 1946. Yet, had he such suspicions, he continued unswervingly to follow the phytogeographic interests which governed and largely shaped the course of his field and publishing activities. In all the years of his association with the Gray Herbarium its annual income was never sufficiently ample to cover more than the essential basic requirements. Strenuous exploring trips to various parts of the "Manual range" were apparently looked upon as luxuries perhaps to be financed as one would finance a vacation at a popular summer resort, yet one cannot exactly visualize Fernald being either a willing or a happy resort resident. These were the places he shunned, as the devil would holy water. Like others dependent on the comparatively small academic incomes prevalent in his earlier years he was obliged to seek grants from various sources to finance his field trips.

In spite of any suspicions that he may have harbored as to the real objectives of the new plan for botany at Harvard he accepted and supported it in good faith as did all other staff members of the nine separately endowed units involved. I do not for a moment suppose that the selection of the name "Fernald Drive" for one of the two streets driven through what was the oldest botanical garden in continuous existence in America appealed to him at all, when the garden was abandoned toward the end of his life. After all this was the first separately endowed unit of Harvard's once proud botanical empire, and the site had been the actual center of Fernald's life from the early part of 1891 to the day of his death nearly sixty years later. It is by no means im-

possible that the highly honored and very widely recognized name "Gray Herbarium" may disappear from the scene.

Outside of purely descriptive botany, Fernald's contributions loom large in other branches of plant science. He was admittedly one of the very keenest field men who ever operated in the region he selected, and for that matter, in the world at large. He made trip after trip in the early part of the present century to the then remote and not easily accessible parts of the Gaspé Peninsula, decades before that region became a Mecca for tourists, to Labrador and to Newfoundland; and these were arduous trips. In these long overlooked areas he was a pioneer botanical explorer. In later years, when further strenuous trips were no longer possible, he turned his attention to another strangely overlooked region, the coastal plain of Virginia and the discoveries he made there were as striking, or more striking, than were those he turned up of the less hospitable northern limits of the Manual range. How strange it is that other field botanists, closer to the scene, had consistently overlooked this coastal plain area, for it was the site of the first English speaking colony in North America. It took a Fernald to discover that the oldest settled region on our Atlantic seaboard was actually less known botanically nearly three hundred years after Jamestown was established, than any other part of our northeastern states.

His contributions to ecology are outstanding and put many of our professional ecologists to shame. His contributions to phytogeography are as eminent in this field as are those in descriptive botany and ecology. He entered the controversial field as to the extent of the Norsemen's knowledge of America, his "Notes on the Plants of Wineland the Good" Rhodora 12: 17-38, 1910, being an outstanding exposition of the possible fact, from the botanical evidence, that in contrast to the beliefs of the romanticists, these ancient visitors to North America may not have gotten south of Labrador. One doubts that forty years later Fernald would have insisted that all the conclusions he then reached were correct. The matter as to where these ancient visitors landed and attempted to establish a colony is still controversial for the romanticists must have their say. It is, however, an illustration of Fernald's broad interests, and like his other

mental excursions into controversial fields, clearly indicates that he was a master of numerous fields entirely outside of and some not even closely related to mere descriptive botany. This is the bane of many taxonomists in that they cannot rise above the level of pure descriptive work. They see so much that needs to be done, trivial or not, that they figuratively fail to see the forest because of the trees, and many of them do not rise above the level of trivialities. But not a Fernald.

Other targets were certain extremists among the glacial geologists who, apparently to a large degree on the basis of preconceived ideas, ardently supported the theory that most or all of the glaciated area in the northeastern United States and adjacent parts of Canada was entirely covered by a sheet of ice some thousands of feet thick during the Pleistocene glaciation. This was manifestly pontification. Fernald's contribution in the field of persistence of species of both plants and animals, clearly indicates that this hypothesis must be modified, for here and there were areas that escaped glaciation and in these areas various species of plants and animals did persist.

His conclusions were admirably summarized in his "Persistence of Plants in 'Unglaciated Areas of Boreal America" (Mem. Amer. Acad. Sci. 15: 239-342, 1925). Later he applied these same ideas to the plants of the Appalachian region and the Atlantic coastal plain. It has been stated by one authority that in reemphasizing the theory of persistence and in stimulating studies as to its implications, Fernald may have made the largest single contribution to the science of phytogeography since the time of Darwin. When he completed the task of seeing the eighth edition of Gray's manual through the press in 1949-50 he was planning to summarize all the vast amount of biological evidence that he had assembled appertaining to this situation for publication, but his sudden though not wholly unexpected death intervened. The master's voice is stilled and no one succeeds him in this particular field, even as at Harvard no one succeeds him as an authority on the taxonomy of the flora of eastern and northern North America.

A mere botanist, I take it, is not supposed to criticize the theories of specialists in extraneous fields, even if it may be pain-

fully evident that some of the theorists have clearly ignored Lord Acton's pithy saying: "The worst use of theory is to make man insensible to fact." Fernald reports that one positive glacial geologist who insisted on the thick continuous ice sheet idea, extending without a break from boreal America southward to Long Island and eastward to Newfoundland, on one occasion wrote to him (Fernald) begging him to desist in criticizing the theory because his findings were wrecking the complainant's reputation! In this field his phytogeographic and other contributions have forced the glacial geologists critically to reexamine the whole basis of theories which some had accepted as proved. Consider only the implications from the fact that there exists in Newfoundland an endemic species of caribou, strikingly different from the one that occurs on the North American continent—yet Newfoundland, according to some specialists, was completely and continuously covered by a thick sheet of ice during the Pleistocene glaciation. Naturally, this endemic mammal could not exist on snow and ice. But consider the scores of similar cases in the plant world, in the land snails, and in other groups of animals and the pattern clearly emerges as Fernald demonstrated. There were areas that escaped glaciation, this being a part of the nunatak theory that he so ably demonstrated; that is, areas here and there, large and small, that remained unglaciated in the vast sea of ice and hence able to support plant and animal life.

As a very keen critic, Fernald was preeminent. He was impatient regarding the published findings of incompetent and careless workers, who, apparently, are always with us. On the occasion of the presentation of the Leidy Medal to Fernald at the Academy of Natural Sciences of Philadelphia, in 1940, I stated the case thus: His trenchant criticism of the work of others in the general field covered by his activities, while not always pleasing to those criticized, assist in maintaining the standards of American botanical scholarship. On one occasion, when one of my former colleagues was requested to review a certain paper, which was far from being what it should have been, I heard him exclaim when he encountered a veritable howler: "Oh, for the pen of a Fernald!" Fernald's published papers on

botanical science exceed 700 [now over 800] in number. These always highly critical, carefully prepared, well written, and full of the results of very keen observation, set an unusually high standard within their field.

Fernald was not vindictive, and what he said about the work of this or that author, in general needed to be said. Even his last published review which appeared in the November, following his death, is a searching criticism of a recently published popular book on trees. It opens with this statement: "Everyone is interested in trees. The poet and the sentimental writer adore them; but we do not expect precision from them, and their ebullitions should not be looked upon either as science or factual. . . . But still trees are a tempting subject, both for those who admit that, for dramatic effect, they alter the facts, and by others who seem to be stating facts but who, obviously, have done altogether too little verification from the more exact and less spectacular sources which are available."

In another field, that of lexicography, if one be intrigued with a little gem of constructive criticism, one should read his little essay "Imagined Wisdom Without Understanding" (Rhodora 46: 312-315, 1944), which is a devastating critique of certain practices in the "beautifully printed and seemingly authoritative Dictionary of American English", by Craigie and Hulbert, issued by the University of Chicago Press in 1938. It is devastating. One hopes that the percentage of gross errors that he detected in the local names of plants considered may not be maintained for the other entries, for the work is generally accepted as authoritative in its field. There really should be some deep pink or dark red faces on the part of certain editorial staff members who perpetrated such gross errors in a field which they manifestly were not equipped to handle.

Fernald was a master of English composition and always gave very critical attention to the preparation of his manuscripts. It was his habit to pencil his first draft on large sheets of newspaper stock, and then proceed to revise and polish the original copy. In this he was very meticulous. The very many visitors who called at the Gray Herbarium during his periods of literary composition will all remember his habit of reading his copy to

them, expounding his reasons as he proceeded, often interspersing rather pointed comments of how obtuse this or that author was (not however included in his copy) and always revising and polishing his text as he proceeded. One simply could not escape until the end was reached. Nor was he adverse to accepting suggestions whereby this or that point might be emphasized

It is a striking tribute to his unrivaled knowledge in special fields that those who may have been subjected to Fernaldian castigations have made no effective rejoinders. These literary castigations were, in general, only too well deserved, but, as noted above, they were not of the vindictive type. Yet human nature being what it is, his effectiveness in this field did not always endear him to those he criticized.

He will be remembered by those who knew him as an outstanding individual, a man who had opinions and who, when sure of his ground, did not hesitate to express them. He subordinated much of his life to the advancement of botanical interests. Even in his later years, after retirement, he worked long hours daily in the herbarium and library and continued his work at home in the evening; in spite of the fact that he had suffered from two mild attacks of coronary thrombosis, and that in the last years of his life his eyesight was very seriously impaired, operations on both eyes for cataract being required. He was always pungent, interesting, a teacher of keen insight, with a fine sense of humor, but always an individual whose standards of work were very high. He will be remembered by the numerous graduate students whom he trained and by the very wide circle of correspondents who depended upon his unsurpassed knowledge of the flora of eastern and boreal North America. knowledge of the vast literature published in all languages appertaining to the flora of his special area and to the North Temperate Zone as a whole, was unrivaled.

When one considers the very broad field of plant science covered by Fernald (and let no doubting Thomas think for a moment that his interests were by any means confined to taxonomy and descriptive botany, fields which now may be subjects of derision by some individuals who should know better) his abso-

lute devotion to various aspects of the subject, and his subordination of his other activities to the advancement of the subject matter that intrigued him, one is reminded of certain entries in Linnaeus' Critica Botanica (1737). There is a definite similarity as between the Linnaean approach and that of Fernald. The latter admitted in his class report for 1922 that he was "attempting to attain and record as exact an understanding as possible of the natural flora of the region [Hudson Strait to the Great Lakes and Long Island and the geological and geographic conditions of the past under which the plants (and with them the animals) reached their present habitats". He then as noted above referred to having at times had to apologize because he had failed to enter a money-making profession. To him, at least, money was not everything, and he preferred to remain an oldfashioned systematic botanist. He kept the faith, and in so doing attained a very high eminence in the field of plant science.

Linnaeus after discussing the significance of generic names perpetuating such individuals as Bauhin, Dorsten, Hernandez, Dillenius, Gronovius, Commelin and others, even including himself, observes: "What can mortals desire more in this transient world of little moment than that a creditable memory of their names may reach posterity and live yet a few days more." He followed this with a remarkable statement which applies to Fernald and to many others who have disinterestedly labored throughout their lives in the field of taxonomy: "What pains, what research could be more tiring and laborious than botany. if it were not that enchantment of a strange will, which I myself cannot explain, often drove us in this direction, so that love of plants vanguishes love of ourselves. . . . Good God! When I muse upon the fate of botanists, upon my word I know not whether I shall call them wise or bereft of reason in their enthusiasm for plants. Every botanist himself knows how many laborious days and sleepless nights, how many hours it is as difficult to spare from other occupations, and what enormous sums he has sacrificed, merely with the intention of serving

<sup>1 &</sup>quot;Linnaea was named by the celebrated Gronovius and is a plant of Lapland, lowly, insignificant, disregarded, flowering but for a brief space—from Linnaeus who resembles it."

others.... Alas that so much toil should gain so humble a reward; and yet how welcome to the recipient such a reward should be!" The quoted passages are from Blair's translation of Hagberg's Linnaeus (1952).

Professor H. H. Bartlett had the fortunate experience of studying under Fernald. He successfully revived the Asa Gray Bulletin in 1952, after its demise in 1901 with eight volumes issued, 1893-1901. Its revival was under the auspices of the University of Michigan; this was, incidentally never a Harvard sponsored periodical. In his appreciation of Professor Fernald's work on Gray's Manual he discussed an advertising flyer of four pages prepared by Fernald (but anonymously published) distributed with the April and May numbers of Rhodora in 1902 (and probably in many sets discarded in binding, as was the case in the Arnold Arboretum set). Its title was: "Why Not Spend the Summer in the Maine Woods?" This was prepared for the then recently opened Bangor and Aroostook Railroad that a few years before had made northern Maine easily accessible. Bartlett stated: "Never before or since has there been such an advertisement, which should by all means be included in a bibliography of Fernald's writings." I agree and it has been included in the appended bibliography to this document. To be appreciated this small document must be read. Bartlett's summary is: "I know nothing in botanical literature with quite the flavor of this advertisement except Bartram's Travels. It would warm the cockles of any botanical heart."

I agree that there is much in this little document that suggests certain entries in Bartram's Travels that so greatly influenced the poetical imagery that appears in the works of Coleridge and Wordsworth as demonstrated by the late Professor J. L. Lowes in his "The Road to Xanadu", and also by other authors. The same flavor appears in Fernald's brief but most enthusiastic, in fact at times almost poetic, statements associated with this, that or the other binominal in stressing the botanical riches to be observed in the wilderness of northern Maine. Clearly Fernald felt at that time that everyone should be as keenly interested in this or that named species to be observed in the Maine woods as he was himself. This interest continued to the very end of his

life. I would add to Bartlett's comparison of the Fernaldian enthusiasms to those of John Bartram that similar comparisons could be made between various entries in the works of both authors to selected ones in Linnaeus' Critica Botanica.

This account of Professor Fernald is frankly an amplification of the one I prepared for the Yearbook of the American Philosophical Society, 287-295, in 1950. I met Fernald first in 1900, saw him rarely and for brief intervals for the next 35 years, and only became associated with him in administrative matters in 1935. Messrs. Pease, Raup and Rollins admirably summarized the outstanding aspects of his personality (Harvard University Gazette 46: 78. 1950) in these words:

"What Fernald's friends and even casual acquaintances will remember about him is not however, his official positions and honors nor even the bulk of works he produced, but the unforgettable character of the man. Tireless in labor, vigorous in expression, fearless and outspoken in controversy or criticism, he yet had a real appreciation and respect for honest work of others. He possessed an extraordinary capacity to stimulate in his associates, by suggestion and commendation—especially in students and in those not too set in their own ways and conceits—an enthusiasm for research and discovery."

Deliberately the majority of Fernald's reviews of the published work of others have been included although he would not have approved of this for when he supervised the preparation of the bibliography of his predecessor, Dr. B. L. Robinson, he forbade the inclusion of any reviews. My reason is that the Fernald's reviews were never perfunctory. In many cases he included really critical analyses, not always pleasing to the authors concerned. Here he clearly indicated his mastery of the situation, the fields covered being those to which he had assiduously and uninterruptedly devoted his full time for a period exceeding a half century of highly productive work. And sometimes these reviews appeared under very expressive titles such as the one mentioned above with the title: "Imagined Wisdom Without Understanding" in 1046. The volume, a reference book in the lexicon category that he justly and very severely criticized was only in small part botanical, but the review was utterly devastating.

I became involved in one of Fernald's pet fields during World War II when on one occasion he happened rather casually to mention the unpublished manuscript of the Kinsey-Fernald "Edible Wild Plants of Eastern North America". The original draft had been prepared during the course of World War I but when the copy was ready for the printer no publisher would accept the manuscript on the theory that with the close of the war there would be no demand for the book. I casually mentioned the text to a New York friend who happened to own a large printing plant. His response was immediate and to the effect that he would publish the book if I could get the manuscript ready on rather short notice. Dr. Fernald was then deeply involved in the completion of the text for the 1950 edition of Gray's Manual, and he did not welcome the task of bringing this almost forgotten manuscript on native edible wild plants up to date. Yet he took on the task and even added several species after testing them personally, such as one of our commonest garden weeds (Galinsoga) and another plant of American origin (Erechtites) now widely naturalized in Malaysia, which, with others I knew were extensively used for food in the Orient; I had been involved in the preparation of the first emergency food manual for the use of our armed forces operating in the southwestern Pacific region, for like Fernald in New England my basic knowledge of this particular subject had been built up over a period of twenty years in field work in the oriental tropics. This was a field in which he was thoroughly competent from very wide personal experience, for the text was not a mere compilation, but every species included in it had been tested as food by Fernald himself. In the early days of the New England Botanical Club when the organization was small and meetings were held at the homes of individual members, it was his delight to provide and serve this or that "unknown" food; and on one occasion when some coal-black buns appeared on the table they were looked upon askance until one of the members realized that the color of the buns was due to the presence of the small jet black seeds of a wild species of Amaranthus which was a very common plant on the city dump and in waste places in Cambridge. After that there was no color line for although it may

not now be generally known, the seeds (and even the tender growing leaves and the tips of the branches) of the amaranths are not only edible but provide excellent food. These *Amaranthus* plants were one of the most ancient sources of food to our primitive ancestors in both hemispheres.

The total number of published papers and individual volumes, and it is suspected that some have been overlooked, approximate eight hundred and thirty titles, but if it had been elected separately to list the individual titles, varying from one or two to as many as eight appearing in individual issues of The Contributions from the Gray Herbarium (1897 to 1949) the total would be about nine hundred. It is no wonder that some of our non-productive colleagues, have at times, accused this or that active and productive individual of having published too much! There are times when comparisons are odious.

Here is a case where, because of the many facets of his personality, it may well be said that when he was formed the mold was destroyed; there never can be another Fernald. Doctor A. S. Pease, who was intimately acquainted with him from long association from his student days throughout his future career as an educator, socially, in the herbarium, and on various long and rugged field trips, states that although Fernald never wore his heart upon his sleeve he had a deep respect for sincere moral character. Although scientists are sometimes accused of impersonal stolidity, the one of Fernald's sayings that he likes best to remember was in reply to a thoughtless youthful remark to the effect that a certain investigation, even if carefully pursued, could have only sentimental value. Fernald's response, with a good deal of feeling was: "This world would be a pretty poor place if there were no sentiment in it."

Merritt Lyndon Fernald kept the faith and carried the torch of his profession high. It is rather striking that his very last paper, published posthumously in 1951, should bear the title: "The Future of Systematic Botany". There is much in this short paper that is well worthy of critical consideration by the most extreme exponents of what has become to be known as the new systematics, and by the even more radical exponents of what may be known as the laboratory school where the major prob-

lems in the field of plant science are apparently to be solved by the application of the principles of plant physiology, genetics, and biological chemistry. Perhaps systematics was overdeveloped in the holding institution as a whole but it should have been remembered by the sponsors and supporters of the new plan that much of the endowment of the four units involved, and all the funds provided for construction purposes had been provided not by the University but by friends of this or that unit to support specific types of work that Asa Gray initiated in 1843. This field he developed until his death in 1888. Perhaps it is well that Fernald reached the end of his very effective and productive career before the existing great reversal in botanical objectives came. What has happened since his retirement, and particularly since his death in 1950 has been catastrophic to those types of botanical research that he believed in, of which he was the greatest living master in America and to which his entire lifework was devoted. The end is not yet, and a more balanced program may yet be developed before another threatened catastrophe happens.

I here quote from Prof. H. H. Bartlett, Rhodora 53: 48 1951: "In botany Harvard's policy was then [1904], as it still remains, to belittle its own best achievements and to disregard its most valuable resources and traditions in building for a glorious new future. So the [Gray] Herbarium, then and subsequently, had the problem of finding in large part its own substance, with little or no encouragement from the top echelon". The same statement is true of seven of the eight existing separately endowed botanical units. But now dictation prevails from above, and all the units now rapidly decline in productiveness and in prestige.

For further details regarding Professor Fernald's career and accomplishments, see the several papers prepared by individuals much more intimately associated with him than I ever was. Rhodora, volume 53, No. 626, pp. 33-65 consists of a series of papers by Messrs. A. S. Pease, J. M. Fogg, Jr., H. H. Bartlett, Reed C. Rollins and Ludlow Griscom on Fernald's life, as a teacher, as a reviser of Gray's Manual, as a botanist, and as a field botanist. These are a remarkable series of tributes to the man.

Fernald was honored by election to various important scientific societies both at home and abroad, including the American Academy of Arts and Sciences, the National Academy of Sciences, and the American Philosophical Society, the Franklin Institute of Philadelphia and the Pennsylvania Horticultural Society. He was a supporting member of our important botanical societies. Abroad he was recognized by elections as a Foreign Member of the Linnaean Society, London; Royal Science Society, Uppsala; Société Linnéenne de Lyon, the Societas Phytogeographica Sueciana, Societas pro Fauna et Flora Fennica, and the Norske Videnskaps Akademi. He was a member of various local and national societies concerned with the plant sciences, serving a term as President of the New England Botanical Club (1911-1914); President, Botanical Society of America (1942); President of the American Society of Plant Taxonomists (1938); and Vice-President, American Association for the Advancement of Science (Section G, Botany, 1941). He was also recipient of the Leidy Gold Medal of the Academy of Natural Sciences, Philadelphia (1940), the Gold Medal of the Massachusetts Horticultural Society (1944), and the Marie-Victorin Medal awarded by the Foundation Marie-Victorin for outstanding services to botany in Canada (1949). He was associated with the editorial policies of Rhodora, the Journal of the New England Botanical Club from the year it was established (1899), and was its editor from 1924 to 1950. Prof. H. H. Bartlett describes it as "one of the most highly personalized of scientific journals, in an era in which most editors have deemed it scandalous to reveal any personality at all". Personality is a character that was Fernald's to a very high degree; and those who were associated with him as students, as colleagues or otherwise will always remember him, and appreciate him for what he was—one of our very greatest and best informed botanists in the fields he mastered and a very worthy successor of the greatest of them all in North America, Asa Grav.

Professor Fernald married Margaret Howard Grant, of Providence, April 5, 1907, who survives him. From this marriage there were three children, Katharine (Mrs. H. G. Lohnes),

Henry Grant, and Mary, of whom the first two survive. There are six grandchildren.

In the preparation of the following bibliography I am very greatly indebted to Dr. Fernald's daughter Katharine (Mrs. H. G. Lohnes), for a critical examination of the botanical literature involved (for the subject of this sketch did not maintain a complete set or even a partial list of his published papers); it is on Mrs. Lohnes' data that this bibliography is based. Mrs. Lazella Schwarten, librarian at the Arnold Arboretum, has prepared the final copy, checking references when desirable, and unifying the citations. Considering that Professor Fernald published in about thirty-five different periodicals, the work speaks for itself, even if the vast majority of the items appear in one periodical, Rhodora.

## KEY TO ABBREVIATIONS USED IN BIBLIOGRAPHY

Amherst Grad. Quart. = Amherst Graduate Quarterly

Am. Jour. Bot. = American Journal of Botany

Am. Jour. Sci. = American Journal of Science

Ann. Assoc. Am. Geogr. = Annals of the Association of American Geographers

Asa Gray Bull. = Asa Gray Bulletin

Bot. Gaz. = Botanical Gazette

Bot. Soc. Exch. Club British Isles = Botanical Society and Exchange Club of the British Isles

Bot. Tidsk. = Botanisk Tidsskrift

Bull. Am. Geogr. Soc. = Bulletin of American Geographical Society of New York

Bull. Bklyn. Inst. = Bulletin, Brooklyn Institute of Arts and Sciences Bull. Geogr. Club Phila. = Bulletin of the Geographical Club of Philadelphia

Bull. Harvard Club Boston = Bulletin of the Harvard Club of Boston Bull. Josselyn Bot. Soc. = Bulletin of the Josselyn Botanical Society of Maine

Bull. Torrey Bot. Club = Bulletin of the Torrey Botanical Club

Canada Field-Nat. = Canadian Field-Naturalist

Canada Dept. Mines Victoria Mem. Mus. Mem. = Canada Department of Mines Victoria Memorial Museum Memoirs

Chron. Bot. = Chronica Botanica

Erythea = A Journal of Botany, West American and General

Fifth Int. Bot. Congress, Report of Proc. = Fifth International Botanical Congress Report of Proceedings

Garden & Forest = A Journal of Horticulture, Landscape Art, and Forestry

Geogr. Rev. = Geographical Review

Harvard Alumni Bull. = Harvard Alumni Bulletin

Harvard Stud. Class. Philol. = Harvard Studies in Classical Philology

Harvard Univ. Gaz. = Harvard University Gazette

Jour. Am. Pharm. Assoc. = Journal of the American Pharmaceutical Association

Jour. Arnold Arb. = Journal of the Arnold Arboretum

Jour. Bot. = Journal of Botany British and Foreign

Jour. Franklin Inst. = Journal of the Franklin Institute

Leafl. West. Bot. = Leaflets of Western Botany

Mem. Am. Acad. = Memoirs of the American Academy of Arts & Sciences

Mem. Gray Herbarium = Memoirs of Gray Herbarium

Nat. Acad. Sci. Biog. Mem. = National Academy of Sciences—Biographical Memoirs

Nat. Geogr. Mag. = National Geographic Magazine

North Am. Flora = North American Flora

Off. Reg. Harvard Univ. = Official Register Harvard University

Ottawa Nat. = Ottawa Naturalist

Proc. Am. Acad. = Proceedings of the American Academy of Arts and Sciences

Proc. Am. Phil. Soc. = Proceedings of the American Philosophical Society

Proc. Boston Soc. Nat. Hist. = Proceedings of the Boston Society of Natural History

Proc. Int. Congress Plant Sci. = Proceedings of the International Congress of Plant Science

Proc. Portland Soc. Nat. Hist. = Proceedings of the Portland Society of Natural History

Quart. Rev. Biol. = Quarterly Review of Biology

Trans. Mass. Hort. Soc. = Transactions of the Massachusetts Horticultural Society

Vt. Bot. Club Bull. = Vermont Botanical Club Bulletin

William & Mary Lit. Mag. = William and Mary Literary Magazine

Yrbk. Am. Philos. Soc. = Yearbook of the American Philosophical Society

Zoe = A Biological Journal

# BIBLIOGRAPHY OF M. L. FERNALD

By Katharine [Fernald] Lohnes and Lazella Schwarten

1800

Notes on two Carices. Bull. Torrey Bot. Club 17: 261.

1891

Plants of special interest collected at Orono, Maine. Bull. Torrey Bot. Club 18: 120-124, 153.

1892

The Portland Catalogue of Maine Plants. 2nd ed. Proc. Portland Soc. Nat. Hist. 2: 41-72.

1894

Notes from the Gray Herbarium. Zoe 4: 379, 380.

(With B. L. Robinson) New plants collected by Messrs, C. V. Hartman and C. E. Lloyd upon an Archaeological Expedition to northwestern Mexico under the direction of Dr. Carl Lumholtz. (Contributions from the Gray Herbarium of Harvard University N. S. 8) Proc. Am. Acad. 30: 114-128.

Northwestern notes. Lathyrus pauciflorus, n. sp., Calochortus pavonaceus n. sp. Bot. Gaz. 19: 335, 336.

# 1895

Salix balsamifera. Garden & Forest 8: 16.

Supplement to the Portland Catalogue of Maine Plants. Proc. Portland Soc. Nat. Hist. 2: 73-96.

Two new mountain plants. Bull. Torrey Bot. Club 22: 273, 274.

List of plants obtained on the Peary Auxiliary Expedition of 1894. Collected by Dr. H. Emerson Wetherill. Bull. Geogr. Club Phila, 1: 208-215.

A red-seeded dandelion in New England. Bot. Gaz. 20: 323, 324.

Undescribed plants from western Mexico, collected principally by F. W. Lamb in the winter of 1894-5. Bot. Gaz. 20: 532-537.

## 7806

Aster tardiflorus and its forms. Bot. Gaz. 21: 275-279. Josselyn Botanical Society of Maine. 5 pp. Aster longifolius, Lam. Garden & Forest 9: 504, 505.

## 1897

New or little-known plants. Aster tardiflorus, L. Garden & Forest 10: 14, 15, Tillandsia Dugesii. 10: 44, 45, Aster junceus, Ait. 10: 64, 65. Second Supplement to the Portland Catalogue of Maine Plants. Proc. Portland Soc. Nat. Hist. 2: 123-137.

An undescribed Antennaria from New England. Garden & Forest 10: 284.

Contributions from the Gray Herbarium of Harvard University N. S. 12: I. A systematic study of the United States and Mexican species of Pectis. Proc. Am. Acad. 33: 57-86, II. Some rare and undescribed plants collected by Dr. Edward Palmer, at Acapulco, Mexico. 86-94. Notes on Florida plants. Bot. Gaz. 24: 433-436.

Antennaria plantaginea and A. Parlinii. Asa Gray Bull. 5: 91-94.

## 1808

Notes upon some northwestern Castilleias of the parviflora group. Erythea 6; 41-51.

The genus Antennaria in New England. Proc. Boston Soc. Nat. Hist. 28: 237-249.

The Illustrated Flora of the northern [United] States and Canada [and the British possessions. N. L. Britton & A. Brown] (Review) Am. Jour. Sci. IV. 6: 277-284.

## 1899

The rattlesnake-plantains of New England. Rhodora 1: 2-7.

[Report of] The Annual Meeting of the Josselyn Botanical Society. Rhodora 1: 19.

A spurless Halenia from Maine. Rhodora 1: 36, 37.

Two plants of the crowfoot family. Rhodora 1: 48-52.

Some Antennarias of northern New England. Rhodora 1: 71-75.

Contributions from the Gray Herbarium of Harvard University N. S. 15.

I. Eleocharis ovata and its American allies. Proc. Am. Acad. 34: 485-497, II. Scirpus Eriophorum and some related forms. 498-503.

Oxytropis campestris in northeastern America. Rhodora 1: 85-89.

Excursions of the Josselyn Society. Rhodora 1: 102, 103.

The Listeras of New England. Rhodora 1: 111.

Two ambiguous loosestrifes from the northern states. Rhodora 1: 131-135.

Synopsis of the 15th Contribution from the Gray Herbarium. (Review) Rhodora 1: 137, 138.

(With J. D. Sornborger) Some recent additions to the Labrador flora. Ottawa Nat. 13: 89-107.

Further notes on New England Antennaria. Rhodora 1: 150-155.

Preliminary lists of New England plants.—III. Antennaria. Rhodora 1: 160.

Pycnanthemum verticillatum, a misinterpreted mint. Bot. Gaz. 28: 130-133.

Some plant-names of the Madawaska Acadians. Rhodora 1: 166-168.

Pubescent capsules of Oenothera pumila. Rhodora 1: 173, 174.

Some plants from the northwest shore of Hudson Bay. Ottawa Nat. 13: 147-140.

Four rare plants from Alaska. Ottawa Nat. 13: 149.

Some undescribed and little-known varieties of Aster and Solidago. Rhodora 1: 187-191.

Three new western plants. Erythea 7: 121, 122.

Ranunculus acris, var. Steveni, in New England. Rhodora 1: 227-229.

## 1900

Arceuthobium pusillum in the St. John and St. Lawrence Valleys. Rhodora 2: 10, 11.

Some northeastern species of Scirpus. Rhodora 2: 15-21.

Is Artemisia Stelleriana a native of New England? Rhodora 2: 38-40. The re-discovery of Eleocharis diandra. Rhodora 2: 60.

Artemisia Stelleriana in New England. Jour. Bot. 38: 130-132.

Notes on Echinacea. Rhodora 2: 84-87.

Scirpus sylvaticus: a correction. Rhodora 2: 106.

Contributions from the Gray Herbarium of Harvard University N. S. 19.

I. A synopsis of the Mexican and Central American species of Salvia.

Proc. Am. Acad. 35: 489-556, II. A revision of the Mexican and Central American Solanums of the subsection Tovaria. 557-562, III. Some undescribed Mexican phanerogams, chiefly Labiatiae and Solanaceae. 562-573.

Some Jesuit influences upon our northeastern flora. Rhodora 2: 133-142. Some undescribed varieties and hybrids of Carex. Rhodora 2: 170, 171. The distribution of the bilberries in New England. Rhodora 2: 187-190.

Rubus idaeus and its variety anomalus in America. Rhodora 2: 195-200. Two northeastern Thalictrums. Rhodora 2: 230-233.

The representatives of Scirpus maritimus in America. Rhodora 2: 239-241.

1001

Monarda fistulosa and its allies. Rhodora 3: 13-16.

The northeastern Carices of the subsection Vesicariae. Rhodora 3: 43-56.

A new variety of Juncus tenuis. Rhodora 3: 59, 60.

Some recent publications and the nomenclatorial principles they represent. Bot. Gaz. 31: 183-197.

Contributions from the Gray Herbarium of Harvard University N. S. 21. Some new Spermatophytes from Mexico and Central America. Proc. Am. Acad. 36: 401-506.

The vascular plants of Mount Katahdin. Rhodora 3: 166-177.

Scutellaria parvula and S. ambigua. Rhodora 3: 198-201.

Extreme variations of Alisma Plantago. Rhodora 3: 206.

New stations for Juneus subtilis. Rhodora 3: 228-230.

Notes on some trees and shrubs of western Cheshire County, New Hampshire. Rhodora 3: 232-236.

Scirpus supinus and its North American allies. Rhodora 3: 249-252.

The true Lycopodium complanatum and its common American representatives. Rhodora 3: 278-281.

The instability of the Rochester nomenclature. Bot. Gaz. 32: 359-366.

The "fall dandelions" of North America. Rhodora 3: 293, 294.

An unarmed Connecticut blackberry. Rhodora 3: 295, 296.

## 1002

Some little-known plants from Florida and Georgia. Bot. Gaz. 33: 154-157.

Early records of Leontodon in America. Rhodora 4: 39, 40.

The Handbook of the Trees of New England. [L. L. Dame & H. Brooks.] (Review) Rhodora 4: 40, 41.

Contributions from the Gray Herbarium of Harvard University N. S. 22.

I. The northeastern Carices of the section Hyparrhenae. Proc. Am. Acad. 37: 447-495, II. The variations of some boreal Carices. 495-514.

A cotton-grass new to North America. Rhodora 4: 82.

The Seneca snakeroot in Maine. Rhodora 4: 133, 134. .

An anomalous skullcap. Rhodora 4: 137, 138.

The Chilean Empetrum in New England. Rhodora 4: 147-151.

An Osmorhiza new to eastern America. Rhodora 4: 153, 154.

Taraxacum palustre in America. Rhodora 4: 155-157.

Aster undulatus x novi-belgii. Rhodora 4: 186, 187.

The relationships of some American and Old World birches. (Contributions from the Gray Herbarium of Harvard University N. S. 23) Am. Jour. Sci. IV. 14: 167-194.

Two northeastern Veronicas. Rhodora 4: 191-195.

Variations of Glaux in America. Rhodora 4: 213-216.

Preliminary lists of New England plants.—X, Carex. Rhodora 4: 218-230.

Ehretia viscosa Fernald. *In:* Sargent, C. S. Trees and Shrubs 1: 25, 26. The variations and distribution of American cranberries. Rhodora 4: 231-237.

## 1003

Andromeda polifolia and A. glaucophylla. Rhodora 5: 67-71.

A new Bidens from the Merrimac Valley. Rhodora 5: 90-92.

Linum catharticum on Cape Breton. Rhodora 5: 119.

Red-flowered Anemone riparia. Rhodora 5: 154, 155.

Solanum molinum Fernald. In: Sargent, C. S. Trees and Shrubs 1: 97.
[Anon.] Bangor and Aroostook Railroad. Why not spend the summer in the Maine woods? Rhodora 5: 4 unnumbered pages at end of number 53 and number 54.

Merritt Lyndon Fernald. Harvard College, Class of 1907, Second Report. 2: 69.

Some variations of Triglochin maritima. Rhodora 5: 174.

Chrysanthemum leucanthemum and the American white weed. Rhodora 5: 177-181.

The American representatives of Luzula vernalis. Rhodora 5: 193-196. Arabis Drummondi and its eastern relatives. Rhodora 5: 225-231.

A new Kobresia in the Aroostook Valley. Rhodora 5: 247-251.

Pursh's report of Dryas from New Hampshire, Rhodora 5: 281-283.

Two northeastern allies of Salix lucida. Rhodora 6: 1-8 (preprinted Dec. 29).

## 1004

Preliminary Lists of New England plants,—XIII. Juncaeae. Rhodora 6: 34-41.

The identity of Michaux's Lycopus uniflorus. Rhodora 6: 134-137.

(With Oakes Ames, et al) Propositions de Changements aux Lois de la Nomenclature Botanique de 1867. 32 pp.

The green alders of New England. Rhodora 6: 162, 163.

Contributions from the Gray Herbarium of Harvard University N. S. 28. IV. Synopsis of the Mexican and Central American species of Alnus. Proc. Am. Acad. 40: 24-28, VI. Some new species of Mexican and Nicaraguan Dicotyledons. 52-57.

Pyrola asarifolia Michx., var. incarnata, n. comb. Rhodora 6: 178, 179. The identity of Andersson's Salix pellita. Rhodora 6: 191.

The American representatives of Pyrola rotundifolia. Rhodora 6: 197-202.

#### 1905

A peculiar variety of Drosera rotundifolia. Rhodora 7: 8, 9. Ledum palustre, var. dilatatum on Mt. Katahdin. Rhodora 7: 12, 13.

A new Arabis from Rimouski County, Québec. Rhodora 7: 31, 32.

An undescribed northern Comandra. Rhodora 7: 47-49.

(With C. H. Knowlton) Draba incana and its allies in northeastern America. Rhodora 7: 61-67.

The North American species of Eriophorum. Rhodora 7: 81-92. 129-136.

(With P. A. Rydberg) Parnassia montanensis Fernald & Rydb., sp. nov.

In: Rydberg, P. A. Parnassiaceae. North Am. Flora 22: 79.

The genus Arnica in northeastern America. Rhodora 7: 146-150.

Spergula sativa in Connecticut. Rhodora 7: 151, 152.

Some lithological variations of Ribes. Rhodora 7: 153-156.

Anaphalis margaritacea, var. occidentalis in eastern America. Rhodora 7: 156.

Symphoricarpos racemosus and its varieties in eastern America. Rhodora 7: 164-167.

An anomalous Alpine willow. Rhodora 7: 185, 186.

Some recently introduced weeds. Trans. Mass. Hort. Soc.: 11-22.

An Alpine Adiantum. Rhodora 7: 190-192.

A pale form of Avena striata. Rhodora 7: 244.

A new Antennaria from eastern Quebec. Ottawa Nat. 19: 156, 157.

An Alpine variety of Cnicus muticus. Ottawa Nat. 19: 166, 167.

A new goldenrod from the Gaspé Peninsula. Ottawa Nat. 19: 167, 168.

A northern Cynoglossum, Rhodora 7: 249, 250.

Draba borealis in eastern America. Rhodora 7: 267.

#### 1006

A new Geum from Vermont and Quebec. Rhodora 8: 11, 12.

A handsome willow of the Penobscot Valley. Rhodora 8: 21, 22,

Some American representatives of Arenaria verna. Rhodora 8: 31-34.

Two variations of Carex glareosa. Rhodora 8: 45-47.

The genus Streptopus in eastern America. Rhodora 8: 69-71.

The variations of Carex paupercula. Rhodora 8: 73-77.

Some anomalous plants of Tiarella and Mitella. Rhodora 8: 90-92.

The identity of Eriophorum Chamissonis and E. russeolum. Ottawa Nat. 20: 62-65.

Paronychia argyrocoma and its New England representative. Rhodora 8: 101-104.

A new variety of Carex interior. Rhodora 8: 114, 115.

Some new or little known Cyperaceae of eastern North America. Rhodora 8: 126-130, 161-167, 181-185, 200-202.

Twelve additions to the Flora of Rhode Island. Rhodora 8: 219-222.

Potamogeton spathaeformis a probable hybrid in Mystic Pond. Rhodora 8: 224.

An Alpine variety of Solidago macrophylla. Rhodora 8: 227, 228.

### 1907

Ribes vulgare and its indigenous representatives in eastern North America. Rhodora 9: 1-4.

The variations of Primula farinosa in northeastern America. Rhodora 9: 15, 16.

The alpine Rhinanthus of Quebec and New Hampshire. Rhodora 9: 23-25.

Note on Cirsium muticum, var. monticola. Rhodora 9: 28.

Doctor Sarrasin of Quebec. Jour. Bot. 45: 117, 118.

(With A. J. Eames) Preliminary lists of New England plants,—XX. Sparganiaceae. Rhodora 9: 86-90.

Streptopus oreopolus a possible hybrid. Rhodora 9: 106, 107.

Merritt Lyndon Fernald. Harvard College, Class of 1897, Third Report. 3: 82, 83.

Diagnoses of new Spermatophytes from Mexico. (Contributions from the Gray Herbarium of Harvard University N. S. 34) Proc. Am. Acad. 43: 61-68.

[Varieties and forms of Fagus.] In: Rehder, A. Some new or little known forms of New England trees. Rhodora 9: 111-115.

The genus Suaeda in northeastern America. Rhodora 9: 140-146.

The soil preferences of certain Alpines and subalpine plants. (Contributions from the Gray Herbarium of Harvard University N. S. 35) Rhodora 9: 149-193.

Salicornia europaea and its representatives in eastern America. Rhodora 9: 204-207.

Some new willows of eastern America. Rhodora 9: 221-226.

#### 1908

The representatives of Rumex salicifolius in eastern America. Rhodora 10: 17-20.

Notes on some plants of northeastern America. Rhodora 10: 46-55, 84-95.

Some northern plants possibly to be found in Vermont. Vt. Bot. Club Bull. 3: 29-34.

Lemna minor and Sparganium eurycarpum in Rimouski County, Quebec. Rhodora 10: 95, 96.

Preliminary lists of New England plants,—XXI. Cyperaceae. Rhodora 10: 135-144.

Note on Michaux's Vaccinium myrtilloides. Rhodora 10: 147, 148.

Draba aurea in Rimouski County, Quebec. Rhodora 10: 148.

(With B. L. Robinson) Gray's new Manual of botany (seventh edition—illustrated), a handbook of the flowering plants and ferns of the central and northeastern United States and Canada. 926 pp.

Preliminary lists of New England plants,—XXII. Najadaceae, Juncaginaceae. Rhodora 10: 168-172.

Notes on Potamogeton pensylvanicus Cham. [A private letter published without permission and without submitting proof] Naturalist 1908: 375, 376.

Bidens connata and some of its American allies. Rhodora 10: 197-203.

#### 1909

The representatives of Potentilla anserina in eastern America. Rhodora II: 1-0.

A pubescent variety of Aster dumosus. Rhodora 11: 31.

(With B. L. Robinson) Emendations of the seventh edition of Gray's Manual—I. Rhodora 11: 33-61.

Note on the report of Scirpus nanus from Vermont. Rhodora 11: 84.

The variations of Arenaria peploides in America. Rhodora 11: 109-115.

An inland variety of Prosperpinaca palustris. Rhodora 11: 120.

The North American species of Barbarea. Rhodora 11: 134-141.

Salix pedicellaris and its variations. Rhodora II: 157-162.

Juncus articulatus, var. nigritellus in Maine. Rhodora 11: 164.

Fimbristylis Frankii Steud., var. brachyactis, n. var. Rhodora 11: 180.

The New England flora of the future, or changes in our flora due to the destruction of the forests. Bull. Josselyn Bot. Soc. 3: 11-17.

Some recent additions to the Maine flora. Bull. Josselyn Bot. Soc. 3: 18-20.

The status of Arenaria stricta in New Hampshire. Rhodora 11: 184, 185. A new variety of Abies balsamea. Rhodora 11: 201-203.

Scirpus Smithii in Massachusetts. Rhodora 11: 220.

# 1910

Note on Boehmeria cylindrica, var. Drummondiana. Rhodora 12: 10, 11. Notes on the plants of Wineland the Good. Rhodora 12: 17-38.

(With K. M. Wiegand) A synopsis of the species of Arctium in North America. Rhodora 12: 43-47.

(With C. H. Bissell) The North American varieties of Lycopodium clavatum. Rhodora 12: 50-55.

(With K. M. Wiegand) Two new Galiums from northeastern America. Rhodora 12: 77-79.

A new variety of Rhamnus caroliniana. Rhodora 12: 79.

(With K. M. Wiegand) The North American variations of Juneus effusus. Rhodora 12: 81-93.

Contributions from the Gray Herbarium of Harvard University N. S. 38. IV. New and little known Mexican plants, chiefly Labiatae. Proc. Am. Acad. 41: 415-422.

(With K. M. Wiegand) A summer's botanizing in eastern Maine and western New Brunswick. Rhodora 12: 101-121, 133-146.

Plants of eastern Massachusetts flowering in April, 1910. Rhodora 12: 127-129.

- Flowering Plants and Ferns of Connecticut [Catalogue of, by C. B. Graves, et al.]. (Review) Rhodora 12: 131, 132.
- (With K. M. Wiegand) Notes on some northeastern species of Spergularia, Rhodora 12: 157-163.
- Notes from the Phaenogamic Herbarium of the New England Botanical Club, I. Some local plants of eastern and central Massachusetts. Rhodora 12: 185-192.
- (With K. M. Wiegand) The variations of Lonicera caerula in eastern America. Rhodora 12: 200-211.
- Some additions to the Rhode Island flora. Rhodora 12: 216, 217.
- (With K. M. Wiegand) The representatives of Erigeron acris in north-eastern America. Rhodora 12: 225-227.

#### IQII

- A new species of Scirpus from Massachusetts and New Jersey. Rhodora 13: 4-8.
- (With K. M. Wiegand) Some boreal species and varieties of Antennaria and Anaphalis. Rhodora 13: 23-27.
- The variations of Lathyrus palustris in eastern America. Rhodora 13: 47-52.
- The varieties of Ribes hirtellum. Rhodora 13: 73-76.
- Recent additions to the flora of Maine. Bull. Josselyn Bot. Soc. 4: 10, 11.
- The northern variety of Gaylussacia dumosa. Rhodora 13: 95-99.
- (With K. M. Wiegand) A boreal variety of Fragaria virginiana. Rhodora 13: 106.
- (With K. M. Wiegand) Cornus canadensis, var. intermedia in eastern America. Rhodora 13: 107, 108.
- A botanical expedition to Newfoundland and southern Labrador. (Contributions from the Gray Herbarium of Harvard University N. S. 40) Rhodora 13: 109-162.
- Notes from the Phanaeogamic Herbarium of the New England Botanical Club, II. Some notable plants of the Brunswick Region. Rhodora 13: 177-183.
- (With K. M. Wiegand) Epilobium pałustre, var. longirameum, n. var. Rhodora 13: 188.
- Harshberger's Phytogeographic Survey of North America. (Review). Rhodora 13: 213-224.
- A pubescent variety of Vaccinium vacillans. Rhodora 13: 235, 236.
- Two lost Carices of eastern Massachusetts. Rhodora 13: 243-248.
- (With K. M. Wiegand) Salix calcicola, a little known northern willow. Rhodora 13: 251-253.

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- A second station for Cyperus Grayii in Essex County, Massachusetts. Rhodora 14: 22.
- Sclerolepis uniflora in Massachusetts. Rhodora 14: 23, 24.

(With K. M. Wiegand) A new variety of Juneus balticus. Rhodora 14: 35, 36.

Two rare Junci of eastern Massachusetts. Rhodora 14: 55, 56.

Fruits and plants of New England (after Champlain). Mass. Hist. Soc. ed. of Wm. Bradford, History of Plymouth Plantation 1620-1647. Vol. 1 an insert after page 358.

An early collection of Salix balsamifera. Rhodora 14: 69, 70.

Bowman's Forest Physiography. (Review) Rhodora 14: 70.

(With C. H. Knowlton and F. G. Floyd) Field excursions of the New England Botanical Club. Rhodora 14: 71-76.

Two local floras [Flora of Burlington and Vicinity, N. E. Flynn; Flora of New Bedford, E. W. Harvey.] (Reviews) Rhodora 14: 78, 79.

New England Trees in Winter [A. F. Blakeslee and C. D. Jarvis]
(Review) Rhodora 14: 79, 80.

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(With C. H. Bissell) A new variety of Lespedeza capitata. Rhodora 14: 91, 92.

Merritt Lyndon Fernald. Harvard College, Class of 1897, Fourth Report 4: 138-140.

(With K. M. Wiegand) A blunt-spiked variety of Carex scoparia. Rhodora 14: 115, 116.

An Illustrated key to the [wild and commonly cultivated] trees [of the northeastern United States and adjacent Canada. J. F. Collins and H. W. Preston] (Review) Rhodora 14: 163.

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(With K. M. Wiegand) A northeastern variety of Chelone glabra. Rhodora 14: 225, 226.

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(With K. M. Wiegand) A northern variety of Erigeron ramosus. Rhodora 15: 59-61.

Some North American relatives of Polygonum maritimum. Rhodora 15: 68-73.

Some noteworthy varieties of Bidens. Rhodora 15: 74-78.

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A Flora of the Connecticut Valley in Massachusetts [G. E. Stone. A list of plants . . .] (Review) Rhodora 15: 97, 98.

(With K. M. Wiegand) Two new Carices from Newfoundland. Rhodora 15: 133, 134.

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(With G. B. Dorr & E. N. Forbush) The unique island of Mount Desert. Nat. Geogr. Mag. 26: 75-89.

(With H. St. John) Nymphaea variegata or N. americana? Rhodora 16: 137-141.

The American variations of Stellaria borealis. Rhodora 16: 144-151.

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#### 1915

A preliminary statement of results of studies on the northeastward distribution of the Coastal Plain flora. In: J. Barrell. Factors in movements of the Strand Line and their results in the Pleistocene and Post-Pleistocene. Am. Jour. Sci. IV. 40: 17-22.

Contributions from the Gray Herbarium of Harvard University N. S. 43. I. Some new or unrecorded Compositae chiefly of northeastern America. Rhodora 17: 1-20. II. (With H. St. John) Some anomalous species and varieties of Bidens in eastern North America. 20-25.

The North American representatives of Dryopteris spinulosa, var. dilatata. Rhodora 17: 44-48.

Flora of the Vicinity of New York, a Contribution to Plant Geography. [N. Taylor] (Review) Rhodora 17: 62-70.

Botrychium angustisegmentum (Pease & Moore), n. comb. Rhodora 17: 87, 88.

Altitudinal limits in Connecticut, a correction. Rhodora 17: 88.

Two variations of Silene antirrhina. Rhodora 17: 96, 97.

A handy book on trees and shrubs. [F. S. Mathews. Field Book of American Trees and Shrubs.] (Review) Rhodora 17: 103, 104. Michaux's Panicum muricatum. Rhodora 17: 105-107.

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The natural history of ancient Vinland and its geographic significance. Bull. Am. Geogr. Soc. 47: 686, 687.

The identity of Circaea latifolia and the Asiatic C. quadrisulcata. Rhodora 17: 222-224.

The characters and range of Carex laevivaginata. Rhodora 17: 231, 232. (With H. St. John) The occurrence of Botrychium virginianum, var. europaeum in America. Rhodora 17: 233, 234.

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Some allies of Antennaria alpina from Newfoundland and the Labrador Peninsula. Rhodora 18: 236-238.

The natural history of ancient Wineland and its geographical significance. [Preliminary outline of lecture.] Bull. Bklyn. Inst. 16: 266, 267.

## 1917

The genus Elatine in eastern North America. Rhodora 19: 10-15.

A new Juncus from Cape Cod. Rhodora 19: 17-20.

The genus Erechtites in temperate North America. Rhodora 19: 24-27. A new Luzula from eastern Canada. Rhodora 19: 38, 39.

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The geographic affinities of the vascular floras of New England, the Maritime Provinces and Newfoundland. Am. Jour. Bot. 5: 219-236. The contrast in the floras of eastern and western Newfoundland. Am. Jour. Bot. 5: 237-247.

The diagnostic character of Vallisneria americana. Rhodora 20: 108-110. (With K. M. Wiegand) Some new species and varieties of Poa from eastern North America. Rhodora 20: 122-127.

The American representatives of Equisetem sylvaticum. Rhodora 20: 120-131.

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Contributions from the Gray Herbarium of Harvard University N. S. 57.

I. The unity of the genus Arenaria. Rhodora 21: 1-7, II. The type of the genus Alsine. 7-9, III. The earlier names for Alsinopsis. 9-12, IV. The American representatives of Arenaria sajanensis. 12-17, V. The specific identity of Arenaria groenlandica and A. glabra. 17-21, VI. The American variations of Arenaria verna. 21, 22.

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(With R. C. Bean & C. H. Knowlton) Plans for the 1919 spring field trip of the New England Botanical Club. Rhodora 21: 86-88.

Rubus idaeus and some of its variations in North America. Rhodora 21: 80-08.

Bidens connata Muhl., var. gracilipes, n. var. Rhodora 21: 103, 104.

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The American Ammophila. Rhodora 22: 70, 71.

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A flora of the Penobscot Bay Region. [A. F. Hill. The vascular flora of the eastern Penobscot Bay Region.] (Review) Rhodora 22: 91-96.

A new Digitaria from New Hampshire. Rhodora 22: 101-104.

(With W. Deane) A new albino raspberry. Rhodora 22: 112.

Pyrola rotundifolia and P. americana. Rhodora 22: 121-123.

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(With K. M. Wiegand) Studies of some boreal American Cerastiums of the section Orthodon. Rhodora 22: 169-179.

Brainerd & Peitersen's Blackberries of New England. (Review) Rhodora 22: 185-191.

Ropes Memorial Lectures: Eighth Course on Botany. Announcement. 3 pp.

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- The North American representatives of Scirpus cespitosus. Rhodora 23: 22-25.
- (With C. A. Weatherby) Equisetum fluviatile or E. limosum? Rhodora 23: 43-47.
- Juniperus communis L. var. megistocarpa Fernald & St. John, n. var.; Rubus arcuans Fernald & St. John, n. sp.; Lathyrus palustris L. var. retusus Fernald & St. John, n. var.; Bartonia iodandra Robinson, var. sabulonensis Fernald, n. var.; Lycopus uniflorus Michx., var. ovatus Fernald & St. John, n. var. In: St. John, H. Sable Island with a catalogue of its vascular plants. Proc. Boston Soc. Nat. Hist. 36: 58, 78, 79, 81, 82, 89, 90, 92.
- Scutellaria epilobiifolia. Rhodora 23: 85, 86.
- The Gray Herbarium Expedition to Nova Scotia, 1920. (Contributions from the Gray Herbarium of Harvard University N. S. 63.) Rhodora 23: 89-111, 130-152, 153-171, 184-195, 223-245, 257-278, 284-300.
- (With H. St. John) The American variations of Silene acaulis. Rhodora 23: 119, 120.
- (With W. J. V. Osterhout & R. Thaxter) Lincoln Ware Riddle. Science N. S. 54: 9.
- The geographic distribution of hybrids. Science N. S. 54: 73, 74. The Vienna Code. Jour. Bot. 59: 233, 234.

### 1922

Some variations of Cakile edentula. Rhodora 24: 21-23.

Notes on Sparganium. Rhodora 24: 26-34.

- Brassica arvensis (L.) Kuntze, var. Schkuhriana (Reichenb.) n. comb. Rhodora 24: 36.
- (With C. A. Weatherby) Varieties of Geum canadense. Rhodora 24: 47-50.
- The generic name Phragmites. Rhodora 24: 55, 56.
- (With H. St. John) Salix vestita and its varieties. *In:* St. John. A botanical exploration of the north shore of the Gulf of St. Lawrence including an annotated list of the species of vascular plants. Canada Dept. Mines Victoria Mem. Mus. Mem. 128: 44, 45. Antennaria glabrifolia. 55, 56.
- Earl J. Grimes [Appreciation of] In: Davis, D. W. Earl Jerome Grimes, p. 325. William & Mary Lit. Mag. 19: 314-326.
- Lysimachia terrestris (L.) BSP., var. ovata (Rand & Redfield) n. comb. Rhodora 24: 76.
- A misleading addition to the state floras of New England [The Ferns, Fern Allies and Flowering Plants of Rhode Island. Providence Franklin Soc.] (Review) Rhodora 24: 96-100.
- Merritt Lyndon Fernald. Harvard College Class of 1897, Twenty-fifth Anniversary Report 6: 181-184.

Polypodium virginianum and P. vulgare. (Contributions from the Gray Herbarium of Harvard University N. S. 66) Rhodora 24: 125-142. Notes on the Flora of western Nova Scotia, 1921. (Contributions from the Gray Herbarium of Harvard University N. S. 67) Rhodora 24: 157-164, 165-180, 201-208.

Hoffmann's Flora of Berkshire County, Massachusetts. (Review) Rhodora 24: 183-187.

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The identities of the Sand Cherries of eastern America. Rhodora 25: 69-74.

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Baffin Land plants collected by the MacMillan Expedition, 1922. Rhodora 25: 111-114.

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Key to the Families of Spring-flowering Plants of Eastern Massachusetts. (Privately printed) 1-12.

The Flora of the Unglaciated Region of Northeastern America. [Abstract] Ann. Assoc. Am. Geogr. 14: 37, 38.

Contributions from the Gray Herbarium of Harvard University N. S. 72.

I. Polystichum mohrioides and some other subantarctic or Andean plants in the Northern Hemisphere. Rhodora 26: 89-95, II. The dwarf Antennarias of northeastern America. 95-102, III. The eastern American representatives of Arnica alpina. 103-107, IV. Some Senecios of eastern Quebec and Newfoundland. 113-122, V. New or recently restudied plants of eastern America. 122-127.

Note on coastal plain distribution. In: D. W. Johnson & N. A. Stolfus. The submerged coastal plain and oldland of New England. Science N.S. 59: 291-298.

A Flora of Springfield, Massachusetts. [L. Andrews. Catalogue of the Flowering Plants and Ferns of Springfield, Massachusetts.] (Review) Rhodora 26: 179, 180.

Myriophyllum magdalenense: a correction. Rhodora 26: 198.

Juncus triglumis and its American representative. Rhodora 26: 201, 202. Isolation and endemism in northeastern America and their relation to the age-and-area hypothesis. Am. Jour. Bot. 11: 558-572.

(With C. A. Weatherby) Comments on the proposals of the British Imperial Botanical Conference for modification of the International Rules of Nomenclature. Mimeographed. 6 pp.

### 1925

(With J. F. Collins) The region of Mount Logan, Gaspé Peninsula. Geogr. Rev. 15: 84-91.

The American representatives of Lonicera caerulea. Rhodora 27: 1-11. Two new Epilobiums of eastern America. Rhodora 27: 32-34.

The validity of Eleocharis quadrangulata. Rhodora 27: 37-40.

A White Mountain Flora. [A. S. Pease. Vascular Flora of Coos County, New Hampshire.] (Review) Rhodora 27: 52.

Pontederia versus Unisema. Rhodora 27: 76-81.

Another Arnica from Newfoundland. Rhodora 27: 90-92.

The Maritime Plantains of North America. Rhodora 27: 93-104.

Botanical explorations in eastern Canada. Harvard Alumni Bull. 27: 1046-1051.

Notes on Sagina. Rhodora 27: 130, 131.

Persistence of plants in unglaciated areas of Boreal America. (Mem. Gray Herb. 2.) Mem. Am. Acad. 15: 239-342.

Erysimum Pallasii (Pursh) n. comb. Rhodora 27: 171.

The New England-Acadian shoreline. [D. Johnson] (Review) Rhodora 27: 187, 188.

Resumé of lecture before Torrey Botanical Club. Torreya 25: 106, 107. Botanizing the unmapped Mountains of Gaspé and Newfoundland. [Preliminary summary of lecture.] Bull. Harvard Club Boston.

Sparganium multipedunculatum in eastern America. Rhodora 27: 190-193.

The arctic variety of Alopecurus aequalis. Rhodora 27: 196-199.

The identity of Eriophorum callithrix. Rhodora 27: 203-210.

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Bromus ciliatus L., var. denudatus (Wiegand) n. comb. Rhodora 28: 20. The ragged Orchis of Newfoundland. Rhodora 28: 21, 22.

Kate Furbish, Botanist. [L. H. Coburn] (Review) Rhodora 28: 36.

Two summers of botanizing in Newfoundland. (Contributions from the Gray Herbarium of Harvard University N. S. 76.) Rhodora 28: 49-63, 74-87, 89-111, 115-129, 145-155, 161-178, 181-204, 210-225, 234-241.

The antiquity and dispersal of vascular plants. Quart. Rev. Biol. 1: 212-245.

[Notes on Potamogeton foliosus and P. pensylvanicus] Bot. Soc. Exch. Club British Isles. Report 7: 787, 788.

Campbell's Outline of Plant Geography. (Review) Ecology 7: 510-516.

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Muhlenbergia uniflora. Rhodora 29: 10-14.

Rehder's Manual of Cultivated Trees and Shrubs. (Review) Rhodora 29: 48-51.

Streptopus oreopolus in the White Mountains. Rhodora 29: 76.

Some varieties of Artemisia borealis. Rhodora 29: 93-95.

The romance of economic botany. [D. C. Peattie. Cargoes and Harvests.] (Review) Rhodora 29: 95, 96.

Arthur Stanley Pease, Botanist, Explorer and Mountaineer. Amherst Grad. Quart. 64: 467-470. Amherst Alumni Council News 1: 1-4.

Three new plants from the Lower St. Lawrence. Rhodora 29: 141-144.

Houstonia Faxonorum (Pease & Moore), n. comb. In: L. Arsène. Contributions to the flora of St. Pierre et Miquelon. Rhodora 29: 187, 188.

The American Cardamine parviflora. Rhodora 29, 191, 192.

The botanical evidence of marine conditions in Lake Melville, Labrador. *In:* The Privy Council (British Empire). In the matter of the boundary between the Dominion of Canada and the Colony of Newfoundland in the Labrador Peninsula. 8: 3936-3948.

Xyris montana in eastern Massachusetts. Rhodora 29: 222, 223.

Axyris amaranthoides in eastern America. Rhodora 29: 223, 224.

Leiophyllum versus Dendrium. Rhodora 29: 225-227.

(With C. A. Weatherby) Proposed additions to the list of "Nomina Conservanda". (Mimeographed) 1-10.

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The authors of Sonchus arvensis, var. glabrescens. Rhodora 30: 19. Contributions from the Gray Herbarium of Harvard University N. S. 79. I. Geocaulon, a new genus of the Santalaceae. Rhodora 30: 21-24, II. The American and eastern Asiatic Beckmannia. 24-27, III. The eastern American variety of Polystichum Braunii. 28-30, IV. The American representatives of Asplenium Ruta-muraria. 37-43, V. The eastern American occurrence of Athyrium alpestre. 44-49, VI. Primula § Farinosae in America. 59-77, 85-104.

Victorin's Les Équisétinées du Québec. (Review) Rhodora 30: 79, 80. The varieties of Galium boreale. Rhodora 30: 106, 107.

(With S. L. Kelsey) A new Oxytropis from the Gaspé Coast. Rhodora 30: 121-124.

[Erigeron compositus, var. trifidis] Rhodora 30: 122, 123.

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Contributions from the Gray Herbarium of Harvard University N. S. 82.

I. The genus Oxytropis in northeastern America. Rhodora 30: 137-155, II. The North American species of Anemone § Anemonanthea. 180-188.

Eragrostis peregrina versus E. Damiensiana. Rhodora 30: 155-157.

Unverified geographic ranges. Science N. S. 68: 145-149.

Panicum longifolium in Massachusettts. Rhodora 30: 190, 191.

An American representative of Calamagnostis epigejos. Rhodora 30: 202-205.

Some eastern American forms of Senecio. Rhodora 30: 224-226.

## 1929

(With J. F. Collins et al.) Editorial announcement. Rhodora 31: 1-6. Roripa islandica an invalid name. Rhodora 31: 17, 18.

Contributions from the Gray Herbarium of Harvard University N. S. 83.

I. (With C. A. Weatherby) Schmidel's Publication of Thelypteris. Rhodora 31: 21-26, II. A study of Thelypteris palustris. 27-36, III. Four grasses of eastern America. 44-49, IV. (With A. E. Brackett) The representatives of Eleocharis palustris in North America. 57-77, V. A note of Poa labradorica. 78.

A hybrid Rynchospora. Rhodora 31: 38.

(With C. A. Weatherby) Proposed Amendments to the International Rules of Nomenclature. Rhodora 31: 91-96.

Polygonella articulata (L.) Meisn., forma atrorubens, n. f. Rhodora 31: 106.

Coptis trifolia and its eastern American representative. Rhodora 31: 136-142.

The author of Athyrium alpestre. Rhodora 31: 165, 166.

Die Subgenera, Sektionen und Subsektionen der Gattung Lysimachia L.
 In: H. Handel-Mazzetti. Die Pflanzenareale 2 Heft 5: Karte 44-49.
 Some relationships of the floras of the Northern Hemisphere. Proc. Int. Congress Plant Sci. 2: 1487-1507.

Round-table discussion: Botanical nomenclature. Proc. Int. Congress Plant Sci. 2: 1564-1569.

Menyanthes trifoliata, var. minor. Rhodora 31: 195, 196.

Achillea sibirica in eastern America. Rhodora 31: 219, 220.

# 1930

Contributions from the Gray Herbarium of Harvard University N. S. 87.

I. Ligusticum scothicum of the North Atlantic and of the North Pacific. Rhodora 32: 7-9, II. Carex marcocephala and C. antheri-

coides. 9-11, IV. The complex Bromus ciliatus. 63-71, V. Some varieties of the amphigean species of Osmunda. 71-76, VI. Potamogeton alpinus and P. microstachys. 76-83, VII. The identities of Juncus canadensis and of J. brevicaudatus. 83-88.

Unglaciated western Newfoundland. Harvard Alumni Bull. 32: 496-505.Cornus L. Section Arctocrania Endl. In: Regel, C. Die Pflanzenareale2 Heft 7: Karte 69.

Willdenow's type of Scirpus glaucescens. Rhodora 21: 31, 32.

A new willow from the Côte Nord, Quebec. Rhodora 32: 112, 113.

The Cape Cod Ceanothus. Rhodora 32: 161, 162.

Gentiana procera Holm forma laevicalyx, n. f. Rhodora 32: 221.

The identity of Alopecurus aegualis. Rhodora 32: 221, 222.

The British representatives of Juncus tenuis. Jour. Bot. 68: 364-367.

## 1931

Scirpus pumilus in the Rocky Mountains. Rhodora 33: 23, 24.

International Botanical Address Book. Rhodora 33: 24.

Some rare plants of Scotland. Jour. Bot. 69: 8-10.

Specific segregations and identities in some floras of eastern North America and the Old World. (Contributions from the Gray Herbarium of Harvard University N. S. 93). Rhodora 33: 25-63. (Abstract in Fifth Int. Bot. Congress, Report of Proc.: 100, 101.)

Editorial announcement. Rhodora 33: 65-68.

A new blackberry from New Hampshire. Rhodora 33: 102-104.

Potentilla canadensis and P. simplex. Rhodora 33: 180-191.

Pedicularis labradorica. Rhodora 33: 193.

The home of Kerria japonica. Rhodora 33: 199, 200.

Discussion in: Joint Discussion on the species concept. Fifth Int. Bot. Congress, Report of Proc.: 231.

Discussion of paper by A. J. Eames: An opinion of the teaching and training of the systematist. Fifth Int. Bot. Congress, Report of Proc.:

Discussion dans les Debáts de la Soussection de Nomenclature Botanique. Fifth Int. Bot. Congress, Report of Proc.: 565, 569, 575, 576, 588, 592, 604, 608, 609.

Rubus Kennedyanus and R. pergratus, var. terraenovae. In: R. B. Kennedy. Further notes from southwestern Newfoundland. Rhodora 33: 208, 209.

Potamogeton tenuifolius Raf. Rhodora 33: 200-211.

Wild flowers of Kashmir. [B. O. Coventry.] (Review) Rhodora 33: 212.

A condensation of Gerarde's Herball. [Leaves from Gerard's Herball, M. Woodward.] (Review) Rhodora 33: 212.

Three Antennarias from Greenland. Rhodora 33: 222-224.

(With C. A. Weatherby) Some new plants from the Gaspé Peninsula. Rhodora 33: 231-240.

## 1932

An Illustrated Flora of Quebec. [Flore Manuel de la Province de Québec, L. Marie.] (Review) Rhodora 34: 19, 20.

Botanizing on the Gaspé sea-cliffs. Harvard Alumni Bull. 36: 1-7.

Some genera and species of Rafinesque. Rhodora 34: 21-28.

Callitriche stagnalis on the lower St. Lawrence. Rhodora 34: 39, 40.

Two contemporary evaluations of the colonization by Sir Walter Raleigh. Rhodora 34: 65, 66.

International Address Book of Botanists. (Review) Rhodora 34: 68. Corylus americana, forma missouriensis. Rhodora 34: 96.

The New Hampshire record for Rynchospora Torreyana. Rhodora 34: 112, 113.

British Seaweeds. [A Handbook of British Seaweeds. L. Newton] (Review) Rhodora 34: 113, 114.

Another localized variety of Bidens heterodoxa. Rhodora 34: 116, 117. Does Juncus bulbosus occur in Massachusetts? Rhodora 34: 117, 118.

An estuarine variety of Mimulus ringens. Rhodora 34: 118, 119.

Flora of the North Shore of the Gulf of St. Lawrence. [An Annotated List of Vascular Plants collected on the North Shore of the Gulf of St. Lawrence. H. F. Lewis.] (Review) Rhodora 34: 120.

An estuarine variety of Gratiola lutea. Rhodora 34: 147-149.

The linear-leaved North American species of Potamogeton, section Axillares. (Memoirs Gray Herbarium 3.) Mem. Am. Acad. 17: 1-183.

(With C. A. Weatherby) Bartonia: a comedy of errors. Rhodora 34: 164-167.

(With C. A. Weatherby) Pinus strobus L., forma prostrata. Rhodora 34: 168.

Lathyrus japonicus versus L. maritimus. Rhodora 34: 177-187.

(With C. A. Weatherby) Picea glauca, forma parva. Rhodora 34: 187-189.

(With C. A. Weatherby) Abies balsamea (L.) Mill., forma hudsonia. Rhodora 34: 190, 191.

Druce's Comital Flora [The Comital Flora of the British Isles. G. C. Druce.] (Review) Rhodora 34: 191, 192.

Diarrhena festucoides. Rhodora 34: 204-206.

Notes on Festuca octoflora. Rhodora 34: 209-211.

(With C. A. Weatherby) Picea rubens Sarg., forma virgata. Rhodora 34: 211.

Phragmites communis Trin., var. Berlandieri. Rhodora 34: 211, 212. Carex Richardsonii in New England. Rhodora 34: 229-232.

Rydberg's Flora of the Prairies and Plains. (Review) Rhodora 34: 243-247.

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Recent discoveries in the Newfoundland flora. (Contributions from the Gray Herbarium of Harvard University N. S. 101.) Rhodora 35: 1-16, 47-63, 80-107, 120-140, 161-185, 203-223, 230-247, 265-283, 298-315, 327-346, 364-386, 395-403.

(With B. L. Robinson & W. H. Weston, Jr.) Minute in the life and services of Professor Roland Thaxter. Harvard Alumni Gaz. 28: 73, 74.

Diarrhena festucoides again. Rhodora 35: 39, 40.

Calamagrostis epigejos, var. georgica in America. Rhodora 35: 64, 65. Two segregates in Sporobolus. Rhodora 35: 108-110.

Hawaiian weeds. [Weeds of the Pineapple Fields of the Hawaiian Islands. H. St. John] (Review) Rhodora 35: 146.

Callitriche anceps in New England. Rhodora 35: 185, 186.

Types of some American species of Elymus. Rhodora 35: 187-198.

The slender-spiked Spartina pectinata. Rhodora 35: 258-260.

The New York record of Fraxinus profunda. Rhodora 35: 293.

Glyceria arkansana in western New York. Rhodora 35: 294.

Some forms of grasses. Rhodora 35: 316-319.

Heterochromism in Arctostaphylos Uva-ursi, var. coactilis. Rhodora 35: 348-350.

The type of Teucrium canadense. Rhodora 35: 392-395.

(With S. K. Harris) Branching Polygonatum pubescens. Rhodora 35: 403-406.

### 1934

Some transfers in Digitaria and Paspalum. Rhodora 36: 19-22.

The name of the American Lotus. Rhodora 36: 23, 24.

(With S. K. Harris) An additional note on the branching tendency in Polygonatum. Rhodora 36: 59, 60.

Realignments in the genus Panicum. (Contributions from the Gray Herbarium of Harvard University N. S. 103.) Rhodora 36: 61-87.

Some critical plants of Greenland. Rhodora 36: 89-97.

A new Primula from the Grand Canyon of the Colorado. Rhodora 36: 117-119.

(With A. R. Hodgdon) Gaultheria procumbens L., forma accrescens f. nov. Rhodora 36: 129.

Four forms of Massachusetts plants. Rhodora 36: 194, 195.

A conical sugar maple. Rhodora 36: 238, 239.

Some beginnings of specific differentiation in plants. Science N. S. 79: 573-578.

Draba in temperate northeastern America. (Contributions from the Gray Herbarium of Harvard University N. S. 105.) Rhodora 36: 241-261, 285-305, 314-344, 353-371, 392-404.

M. O. Malte as a systematic botanist. Canada. Field-Nat. 48: 91-93.

(With C. A. Weatherby) Some inadequately characterized species of George Vasey. Rhodora 36: 346-348.

Agropyron trachycaulum versus A. pauciflorum. Rhodora 36: 417-420. Flora of Iceland and the Faeroes [C. H. Ostenfeld & J. Gröntved] (Review) Rhodora 36: 421, 422.

## 1935

Economic plants [E. E. Stanford.] (Review) Rhodora 37: 31, 32. Lemna cyclostasa an invalid name. Rhodora 37: 75, 76.

(With L. Griscom) Three days of botanizing in southeastern Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 107.) Rhodora 37: 129-157, 167-189.

Two new botanical journals [Phytologia and Claytonia] Rhodora 37: 162, 163.

Galium Brandegei. Leafl. West. Bot. 1: 184.

Critical plants of the upper Great Lakes region of Ontario and Michigan. (Contributions from the Gray Herbarium of Harvard University N. S. 108.) Rhodora 37: 197-222, 238-262, 272-301, 324-341.

Victorin's Flore Laurentienne. (Review) Rhodora 37: 305-307.

Praeger's Botanist in Ireland. (Review) Rhodora 37: 308.

Hitchcock's Manual of the Grasses. (Review) Rhodora 37: 369-372.

Midsummer vascular plants of southeastern Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 109.) Rhodora 37: 378-413, 423-454.

# 1936

Albino Iris versicolor. Rhodora 38: 52.

Gnaphalium calviceps, a correction. Rhodora 58: 52.

Virginia records needing verification. Claytonia 2: 36, 37.

Gray Herbarium. In: Report of the President of Harvard College . . . 1934-35. Off. Reg. Harvard Univ. 33 (no. 4): 297-302.

Some forms in the Alismaceae. Rhodora 34: 73, 74.

(With C. A. Weatherby and I. M. Johnston) Benjamin Lincoln Robinson. Harv. Univ. Gaz. 31: 107, 108.

Nathaniel Lord Britton, 1859-1934. Proc. Am. Acad. 70: 505, 506. A smooth-husked hazel. Rhodora 38: 76.

The resignation of James Franklin Collins. Rhodora 38: 101.

Contributions from the Gray Herbarium of Harvard University N. S. 113.

I. A new pondweed from Tennessee. Rhodora 38: 165-169, II. Pilea in eastern North America. 169, 170, III. Memoranda on Ranunculus. 171-178, IV. The nomenclature of Sassafras. 178, 179, V. Memoranda on Aruncus. 179-182, VI. Studies in Solidago. 201-229, VII. Memoranda on Antennaria. 229-231, VIII. Varieties of Gnaphalium obtusifolium. 231-233, IX. Minor forms and transfers. 233-239.

Prenanthes crepidinea in western New York. Rhodora 38: 300.

Asplenium platyneuron (L.) Oakes, var. bacculum-rubrum. Rhodora 38: 304.

Dates of publication of Rydberg's Flora of the Rocky Mountains and Adjacent Plains. Rhodora 38: 329-331.

Hypericum mutilum L., var. latisepalum. Rhodora 38: 372.

Plants from the outer coastal plain of Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 115.) Rhodora 38: 376-404, 414-452.

### 1937

Petalostemon occidentale (Gray) comb. nov. Rhodora 39: 28.

Gray Herbarium. In: Report of the President of Harvard College . . . 1935-36. Off. Reg. Harvard Univ. 34 (no. 11): 298-302.

Merritt Lyndon Fernald. Harvard College Class of 1897. Fortieth Anniversary Report 8: 42.

Braya humilis, var. leiocarpa. Rhodora 39: 276.

(With L. Griscom) Notes on Diodia. (Contributions from the Gray Herbarium of Harvard University N. S. 118, no. 3.) Rhodora 39: 306-308.

Nomenclatural transfers and new varieties and forms. (Contributions from the Gray Herbarium of Harvard University N. S. 118, no. 4.) Rhodora 39: 309-320.

Local plants of the Inner Coastal plain of southeastern Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 120.) I. Account of a summer's collecting. Rhodora 39: 321-366, II. Enumeration and discussion of noteworthy species collected. 379-415, 433-459, III. Phytogeographic consideration. 465-491.

Benjamin Lincoln Robinson (1864-1935). Proc. Am. Acad. 71: 539-542. Albert Spear Hitchcock (1865-1935). Proc. Am. Acad. 71: 505, 506.

Biographical memoir of Benjamin Lincoln Robinson, 1864-1935. Nat. Acad. Sci. Biog. Mem. 17: 305-330.

(With L. Griscom) Identity of Lobelia glandulosa Walt. Rhodora 39: 497.

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Gray Herbarium. In: Report of the President of Harvard College . . . 1936-37. Off. Reg. Harvard Univ. 35 (no. 4): 309-314.

A flora of Oklahoma [Oklahoma Flora. T. R. Stemen & W. S. Myers] (Review) Rhodora 40: 179-183.

Datura stramonium L. var. inermis (Juss.) comb. nov. Rhodora 40: 184.

Anaphalis margaritacea again. Rhodora 40: 218, 219.

Dormancy of seeds. [The Vegetation of Cranbrook Lake bottom. C. Billington] (Review) Rhodora 40: 324.

New species, varieties and transfers. (Contributions from the Gray Herbarium of Harvard University N. S. 122.) Rhodora 40: 331-358.

Noteworthy plants of southeastern Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 123.) Rhodora 40: 364-424, 434-459, 467-485.

Must all rare plants suffer the fate of Franklinia? Jour. Franklin Inst. 226: 383-397.

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Gray Herbarium. *In:* Report of the President of Harvard College . . . 1937-38. Off. Reg. Harvard Univ. 36 (no. 4): 350-361.

Hibiscus palustris L., forma oculiroseus (Britton), comb. nov. Rhodora 41: 112.

Oxypolis Canbyi (Coult. & Rose), comb. nov. Rhodora 41: 139.

How soon will the Manual be done? A plea for some undisturbed moments. Science N. S. 89: 329-332.

New species, varieties and transfers. (Contributions from the Gray Herbarium of Harvard University N. S. 126.) Rhodora 41: 423-461.

Last survivors in the flora of Tidewater Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 128.) Rhodora 41: 465-504, 529-599, 564-574.

### 1940

A new southern Kalmia. Rhodora 42: 53, 54.

Pensylvanicus or pennsylvanicus? Rhodora 42: 94, 95.

Gray Herbarium. In: Report of the President of Harvard College . . . 1938-39. Off. Reg. Harvard Univ. 37 (no. 12): 390-397.

A pilose variety of Diervilla Lonicera. Rhodora 42: 144.

Collection of plants in eastern Virginia and the Carolinas. Yrbk. Am. Philos. Soc. 1939: 207-209.

Albino forms of the beach pea. Rhodora 42: 157.

Gentiana Pennelliana, nom. nov. Rhodora 42: 198.

Potentilla gracilis Dougl., var. pulcherrima (Lehm.) comb. nov. Rhodora 42: 213.

Some spermatophytes of eastern North America. (Contributions from the Gray Herbarium of Harvard University N. S. 131.) Rhodora 42: 239-276, 281-302.

A century of additions to the flora of Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 133.) Rhodora 42: 355-416, 419-498, 503-521.

The "Flora Virginica" of Gronovius. Chron. Bot. 6: 27, 28.

Rehder's Manual [Manual of Cultivated Trees and Shrubs Hardy in North America. A. Rehder.] (Review) Rhodora 42: 502.

The problem of conserving rare native plants. Smithsonian Report 1939: 375-391. (Reprinted Real Gardening 3: No. 11, 66-76; No. 12, 33-43.)

### 1941

Geranium nemorale, Sukds., var. Bicknellii (Britton) comb. nov. Rhodora 43: 35, 36.

Cornus canadensis L., forma rosea, f. nov. Rhodora 43: 156.

Gray Herbarium. In: Report of the President of Harvard College . . . 1939-40. Off. Reg. Harvard Univ. 38 (no. 20): 371-379.

Transfers in Pyrola. Rhodora 43: 167.

Elatine americana and E. triandra. Rhodora 43: 208-211.

Two varieties of Dicliptera brachiata. Rhodora 43: 287.

Varieties of Acnidia altissima. Rhodora 43: 288.

The campestrian variety of Froelichia floridana. Rhodora 43: 336.

Studies of estuarine, marsh and sand-flora of eastern Virginia and North Carolina. Yrbk. Am. Philos. Soc. 1940: 168, 169.

Phragmites communis versus P. maximus. Rhodora 43: 286, 287.

Two forms of Rhododendron maximum. Rhodora 43: 336.

A hybrid Cornus from Cape Breton. Rhodora 43: 411, 412.

Viburnum edule and its nomenclature. Rhodora 43: 481-483.

Another century of additions to the flora of Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 139.) Rhodora 43: 485-553, 559-630, 635-657.

(As editor) The spelling of "pensylvanica" again. Rhodora 43: 556.

## 1942

Gray Herbarium. *In:* Report of the President of Harvard College . . . 1940-41. Off. Reg. Harvard Univ. 39 (no. 5): 367-375.

Some historical aspects of plant taxonomy. Rhodora 44: 21-43.

Carex Bayardi, nom. nov. Rhodora 44: 71.

Macloviana as a specific name. Rhodora 44: 71. 72.

Carex corrugata from Alabama. Rhodora 44: 76.

Justicia mortuifluminis, nom. var. Rhodora 44: 92.

Incidents of field-work with J. Franklin Collins. (Contributions from the Gray Herbarium of Harvard University N. S. 140.) Rhodora 44: 98-147.

Formal transfers in Cyperus. Rhodora 44: 151.

Some color forms of Gentiana Porhyrio. Rhodora 44: 151, 152.

Betula pusilla (Nutt.) comb. nov. Rhodora 44: 189-191.

Pluchea purpurascens (Sw.) DC., var. succulenta, var. nov. Rhodora 44: 227, 228.

The scarcity of pink-flowered Gentiana Poryphyrio. Rhodora 44: 237, 238.

Misinterpretation of Atlantic Coastal Plain species. Rhodora 44: 238-246. Hibiscus Moscheutos and H. palustris. Rhodora 44: 266-278.

Digitalis purpurea naturalized in Newfoundland. Jour. Am. Pharm. Assoc. Scientific Ed. 31: 248.

Critical notes on Carex. (Contributions from the Gray Herbarium of Harvard University N. S. 144.) Rhodora 44: 281-331.

Three transfers in the Compositae. Rhodora 44: 340.

Some early botanists of the American Philosophical Society. Proc. Am. Philos. Soc. 86: 63-71.

Ranunculus abortivus L., forma coptidifolius, forma nova. Rhodora 44: 408.

The seventh century of additions to the flora of Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 145.) Rhodora 44: 341-405, 416-452, 457-479.

Transfers in Scirpus § Actaeogeton. Rhodora 44: 479-484.

## 1943

An important bibliography. [John Torrey, A. D. Rodgers, III.] (Review) Rhodora 45: 28.

(With A. C. Kinsey) The edible wild plants of eastern North America. Cornwall-on-Hudson. xiv, 452 pp.

Scirpus Longii in North Carolina. Rhodora 45: 55, 56.

An invaluable reference work. [Geographical guide to the floras of the World, S. F. Blake & A. C. Atwood.] (Review) Rhodora 45: 56. Two later homonyms. Rhodora 45: 111, 112.

The fruit of Dirca palustris. Rhodora 45: 117-119.

Scirpus Peckii in Canada. Rhodora 45: 168.

Contributions from the Gray Herbarium of Harvard University N. S. 148.

I. Five common rhizomatous species of Muhlenbergia. Rhodora 45: 221-239, II. Notes on Danthonia. 239-246, III. Erianthus brevibarbis and other species. 246-255, IV. Why not Andropogon Gerardi? 255-258, V. Studies in North American species of Scirpus. 279-296, VI. The identity of Scleria setacea of Poiret. 296, 297, VII. What is Angelica triquinata? 298-303, VIII. Notes on Hieracium. 317-325.

Types of Argentinian plants of Spegazzini. Science N. S. 97: 423.

A Flora of Kentucky. [An Annotated Catalog of Spermatophytes of Kentucky. E. L. Braun.] (Review) Rhodora 45: 277, 278.

Our varieties of Barbarea vulgaris. Rhodora 45: 304.

Our varieties of Trifolium pratense. Rhodora 45: 331.

Trifolium hybridum and its var. elegans. Rhodora 45: 331.

Centaurea nervosa in America. Rhodora 45: 331, 332.

Minor transfers and forms in Cirsium. Rhodora 45: 353, 354.

Our albino lupine. Rhodora 45: 356.

Eastern extension of Cirsium Flodmani. Rhodora 45: 356.

Virginian botanizing under restrictions. (Contributions from the Gray Herbarium of Harvard University N. S. 149.) Rhodora 45: 357-413, 445-480, 485-510.

Vicia tetrasperma, var. tenuissima in America. Rhodora 45: 480.

Trillium undulatum Willd, forma Cleavelandicum (Wood) comb. nov. Rhodora 45: 517, 518.

The Quebec stations for Scirpus Peckii. Rhodora 45: 518.

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Overlooked species, transfers and novelties in the flora of eastern North America. (Contributions from the Gray Herbarium of Harvard University N. S. 150.) Rhodora 46: 1-21, 32-57.

Setaria Faberii in eastern America. Rhodora 46: 57, 58.

The so-called keeled garlic of eastern Pennsylvania. Rhodora 46: 59, 60.

A further item of Lilium michiganense. Rhodora 46: 86, 87.

Spergula pentandra in America. Rhodora 46: 88.

Fimbristylis Baldwiniana not the same as F. annua. Rhodora 46: 144, 145.

Does Trilisa occur in Virginia? Rhodora 46: 148.

Does Cnicus benedictus persist in our flora? Rhodora 45: 158.

Jussiaea Michauxiana nom. nov. Rhodora 46: 197, 198.

An indispensable index to Rhodora. Rhodora 46: 200.

Is Hypochaeris glabra established in our flora? Rhodora 46: 206.

Continental Drift and Plant Distribution [D. H. Campbell] (Review) Rhodora 46: 249-251.

The albino of Epilobium latifolium. Rhodora 46: 251, 252.

Shrubs of Michigan [C. Billington] (Review) Rhodora 46: 254.

Abram's Illustrated Flora of the Pacific States. (Review) Rhodora 46: 282-284.

Two of Rafinesque's species of Tradescantia. Rhodora 46: 310, 311.

Imagined wisdom without understanding. [A dictionary of American English on historical principles. W. A. Craigie & J. R. Hulbert.] (Review) Rhodora 46: 312-315.

Is there any evidence of Seriocarpus bifoliatus in the Manual Range? Rhodora 46: 316.

Gray Herbarium. *In:* Report of the President of Harvard College . . . 1941-42. Off. Reg. Harvard Univ. 41 (no. 23): 392-399; 1942-43. 41 (no. 25) 276-282.

Is Erigeron carolinianus a valid American species? Rhodora 46: 323-330. The identities of Epilobium lineare, E. densum and E. ciliatum. Rhodora 46: 377-386.

Satureja vulgaris (L.) Fritsch, var. neogaea, var. nov. Rhodora 46: 388. Lycopus amplectans, var. pubens in New England. Rhodora 46: 451, 452. Why Acerates floridana? Rhodora 46: 488, 489.

The confused publication of Monarda Russeliana. Rhodora 46: 491-493. The geographic segregation of Monarda fistulosa and its var. mollis. Rhodora 46: 494-496.

The validity of Lithospermum latifolium. Rhodora 46: 496, 497.

### 1945

Ruellia in the eastern United States. (Contributions from the Gray Herbarium of Harvard University N. S. 153.) Rhodora 47: 1-38, 47-63, 69-90.

Perezia aletes an Argentinian species. Rhodora 47: 47.

Woody plants of Maine. [F. Hyland & F. H. Steinmetz] (Review) Rhodora 47: 143, 144.

Minor forms and transfers. Rhodora 47: 144.

Botanical specialties of the Seward Forest and adjacent areas of south-eastern Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 156.) Rhodora 47: 93-142, 149-182, 191-204.

An incomplete flora of Illinois. [Flora of Illinois. G. N. Jones] (Review) Rhodora 47: 204-219.

Contributions from the Gray Herbarium of Harvard University N. S. 157.

I. Key to Antennaria of the "Manual Range". Rhodora 47: 221-235, 239-247, II. Transfers in and animadversions on Artemisia. 247-256, III. Senecio congestus. 256, 257, IV. Notes on eastern American Luzula. 265-271.

Injury to herbarium specimens by extreme heat. Rhodora 47: 258-260. Senecio Smallii Britton, forma tristis f. nov. Rhodora 47: 302.

Contributions from the Gray Herbarium of Harvard University N. S. 159. Some North American Corylacea (Betulaceae). I. Notes on Betula in eastern North America. Rhodora 47: 303-329, II. Eastern North American representatives of Alnus incana. 333-362.

Chamaedaphne calyculata (L.) Moench. var. latifolia (Ait.) comb. nov. Rhodora 47: 390, 391.

Handy Guide to Aquatic and Marsh Vegetation. [J. B. Moyle & N. Hotchkiss.] (Review) Rhodora 47: 395.

"Ia." sometimes stands for Indiana. Rhodora 47: 404, 405.

### 1946

Cypripedium Calceolus L., var. parviflorum (Salisb.) comb. nov. Rhodora 48: 4.

Technical studies on North American plants. (Contributions from the Gray Herbarium of Harvard University N. S. 160.) I. Some species in Rafinesque's "Herbarium Rafinesquianum". Rhodora 48: 3-13, II. Difficulties in North American Salix. 13-16, 27-40, 41-49, III. Nomenclatural transfers in Polygonum. 49-54, IV. Novelties in our flora. 54-60, 65-81.

Does Habenaria cristata still grow in New England? Rhodora 48: 64. North American representatives of Alisma Plantago-aquatica. Rhodora 48: 86-88.

Sporadic appearance of Epipactis helleborine. Rhodora 48: 88.

Helianthus—a correction. Rhodora 48: 112.

Amelanchier spicata not an American species. Rhodora 48: 125-129.

A Monograph of Amelanchier [American species of Amelanchier. G. N. Jones.] (Review) Rhodora 48: 120-134.

The varieties of Lycopodium inundatum. Rhodora 48: 134-136.

Identifications and reidentifications of North American plants. (Contributions from the Gray Herbarium of Harvard University N. S. 162.) Rhodora 48: 137-162, 184-197, 207-216.

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Types of some American trees. Jour. Arnold Arb. 27: 386-394.

Senecio tomentosus Michx., forma alabamensis Britton, stat. nov. Rhodora 48: 330, 331.

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## 1947

Itea virginica L., forma abbreviata, f. nov. Rhodora 49: 22, 23. Salicornia europaea L., var. simplex (Pursh) comb. nov. Rhodora 49: 23. Unverified bibliography of Scirpus. Rhodora 49: 49-52.

Sedum Rosea, not S. roseum. Rhodora 49: 79-81.

Fruits of trees [Fruit Key to Northeastern Trees. W. M. Harlow] (Review) Rhodora 49: 83.

Additions to and subtractions from the Flora of Virginia. (Contributions from the Gray Herbarium of Harvard University N. S. 163.) Rhodora 49: 85-115, 121-142, 145-159, 175-194.

Merritt Lyndon Fernald. Harvard College Class of 1897. Fiftieth Anniversary Report 10: 204-209.

Flora of Kalamazoo County, Michigan. [C. R. & F. N. Hanes] (Review) Rhodora 49: 143.

Flora of Delaware and the Eastern Shore [R. R. Tatnall] (Review) Rhodora 49: 164.

Inadequate basis of the name Carya Pecan. Rhodora 49: 194-196.

Gray Herbarium. In: Report of the President of Harvard College . . . 1943-44. Off. Reg. Harvard Univ. 44 (no. 20): 300-305.

North American variety of Equisetum Telmateia. Rhodora 49: 203-207.

Two eastern American species of Iris. Rhodora 49: 210-215.

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The new Washington-Baltimore checklist. [F. J. Hermann] (Review) Rhodora 50: 15-17.

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A small gathering of blackberries. Rhodora 50: 73-80.

Rorippa: a correction. Rhodora 50: 100.

Gray Herbarium. In: Report of the President of Harvard College . . . 1945-46. Off. Reg. Harvard Univ. 45 (no. 12): 194-198.

Some minor forms of Rosa. Rhodora 50: 145-147.

Two forms in Euphorbia. Rhodora 50: 148.

The name Taraxacum officinale. Rhodora 50: 216.

A model flora of Nova Scotia. [A. N. Roland] (Review) Rhodora 50: 211-215.

(With B. G. Schubert) Studies of American types in British herbaria. (Contributions from the Gray Herbarium of Harvard University N. S. 167.) Part I. Prefatory notes by Dr. Schubert. Rhodora 50: 149-154, II. Some Linnaean species. 154-176, III. A few of Philip Miller's species. 181-190, IV. Some species of Thomas Walter. 190-208, 217-229, IV. A few species of later authors. 229-233.

Erigeron compositus Pursh. var. discoideus Gray, forma trifidus. Rhodora 50: 238-240.

The confused bases of the name Pinus palustris. Rhodora 50: 241-249. Scirpus verecundus, nom. var. Rhodora 50: 284.

Gray Herbarium. Report of the President of Harvard College . . . 1944-45. Off. Reg. Harvard Univ. 45 (no. 30): 312-316.

## 1949

An Abbreviated Flora of Maine. [Checklist of the Vascular Plants of Maine. E. C. Ogden, et al.] (Review) Rhodora 51: 5-8.

A most useful series of illustrations. [Drawings of British Plants. S. Ross-Craig.] (Review) Rhodora 51: 31, 32.

Contributions from the Gray Herbarium of Harvard University N. S. 169. (With B. G. Schubert) I. Some identities in Breweria. Rhodora 51: 35-43, II. Studies in eastern American plants. 43-57, 61-85, 93-104.

Chenopodium hybridum L. var. Standleyanum (Aellen) comb. nov. Rhodora 51: 92.

Hypericum adpressum Bart., forma spongiosum (Robinson) stat. nov. Rhodora 51: 112.

Grasses of North Carolina (A friendly critique) [H. L. Blomquist] (Review) Rhodora 51: 124-128.

Charles Alfred Weatherby, botanist and helper of botanists. Rhodora 51: 169-179.

(With B. G. Schubert) Bibliography of Charles Alfred Weatherby. Rhodora 51: 179-191.

Errors in citation of Agrostis and Convolvulus. Rhodora 51: 192, 193.

An indispensable bibliography [Bibliography of Cultivated Trees and Shrubs. A. Rehder] (Review) Rhodora 51: 365-367.

Gray Herbarium. In: Report of the President of Harvard College . . . 1946-47. Off. Reg. Harvard Univ. 46 (no. 30): 263-267.

#### 1950

Three additions to the flora of Nova Scotia. Rhodora 52: 18, 19. Introductory note. Betula Michauxii, a brief symposium. Rhodora 52: 25-27.

Alchemilla alpina in Colorado, Rhodora 52: 47, 48.

Long life to Alexander W. Evans. Rhodora 52: 49-52.

A small fascicle of novelties. Rhodora 52: 61-71.

(With B. G. Schubert) Arenaria uniflora. Rhodora 52: 71, 72.

Potamogeton oblongus, not P. polygonifolius. Rhodora 52: 128.

Need for caution regarding certain collections. Rhodora 52: 175-179.

Gray's Manual of Botany. Eighth (Centennial) edition—illustrated. A handbook of the flowering plants and ferns of the central and northeastern United States and Canada. i-lxiv, 1-1632. f. 1-1806. New York, American Book Company.

The hybrid of Lysimachia terrestris and L. thrysiflora. Rhodora 52: 199-201.

Adiantum capillus-veneris in the United States. Rhodora 52: 201-208. Shrubs of Michigan. [C. Billington] (Review) Rhodora 52: 208. The North American variety of Milium effusum. Rhodora 52: 218-222. Galium harcynicum: a problem in interpreting the International Rules. Rhodora 52: 222-224.

The validity of the generic name Pteretis. Rhodora 52: 246, 247.

The seeming invalidity of some substitutes for the name Habenaria straminea. Rhodora 52: 247-249.

Our American forms of Stellaria Alsine. Rhodora 52: 250, 251.

Why so many careless books on trees and other plants? Rhodora 52: 272-279.

Arnica mollis and A. lanceolata. Rhodora 52: 284-288.

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Botanizing on the Gaspé Peninsula 1902-1904. Rhodora 53: 1-22. Arthur Stanley Pease, the Botanical Explorer. Harvard Stud. Class. Philol. 60: 11-21.

The future of systematic botany. Chron. Bot. 12: 175-178.