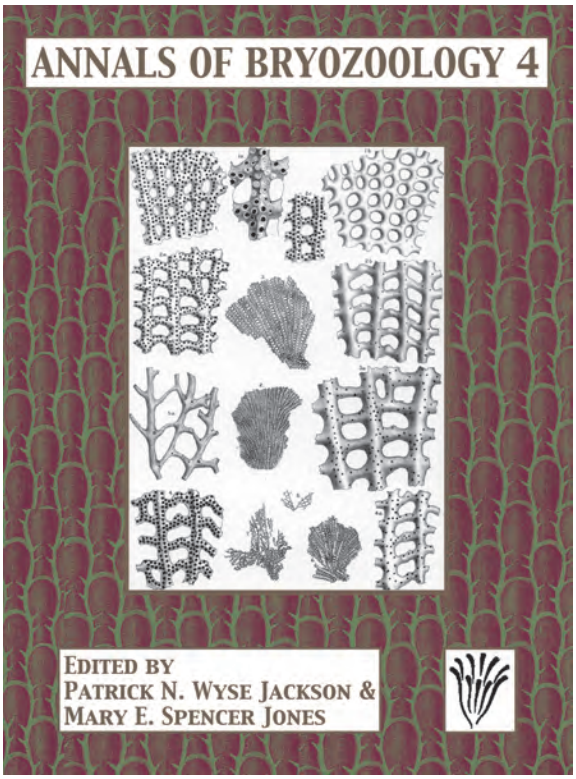

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Mary Dora Rogick: Mid-Century Nexus of Bryozoology

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1. Introduction

Mary Dora Rogick (Figure 1), a daughter of immigrants, was a Ph.D. student of Raymond C. Osburn and, after him, the most important American bryozoan worker of her time, producing papers on freshwater and marine bryozoans from the 1930s to 1965. As a woman graduating in the mid-Depression she looked long and hard for a job. By finding one and by succeeding as a professor and research scientist despite many difficulties, she became one of the few internationally known American women biologists to come out of the decades between the 1930s and the 1960s. College of New Rochelle students remembered her for her excellent teaching, her subdued dress, and the 1930s hairstyle she retained all her life. But Mary had talents besides teaching and research, however, she was a skilled illustrator who included original humorous cartoons in her articles and letters. She was also a dedicated correspondent, who delighted in exchanging letters and cards with colleagues, many of the invertebrate biologists and bryozoologists of her time among them.

Mary's many correspondents included Anna Androsova, Anna Hastings, Libbie Hyman, and Ernst and Eveline Marcus. Mary's friendly nature and willingness to share her life with others often led to extended long-distance friendships. Her death in 1964 at the age of 58 put a premature end to a life that kept many bryozoologists and invertebrate zoologists in touch with each other in the years before the formation of the International Bryozoology Association in 1968.

Figure 1. Portrait of Mary Dora Rogick as a young woman.

2. Family and Early Years

Mary Dora Rogick was born in East Sandy, Pennsylvania on October 7, 1906. Her parents, Nicolas and Sara Rogick (originally spelled Rogíc), had grown up and married in Poitelj, Lika Province, Yugoslavia (44° 26' 56" North, 15° 26' 52" East), once part of Austria, now part of Lika-Senj, Bosnia and Herzegovina. They immigrated to the United States as adults (her father in 1903, her mother in 1904)[1] where they became U.S. citizens.

Mary's parents had belonged to the Serbian Orthodox Church, but as she told Libbie Hyman, "I was born into the Serbian Orthodox faith which is similar to the Russian and Greek Orthodox or Episcopalian faiths but lived most of my life in towns or cities where there was no church of our denomination so grew up without much formal religious training. Consequently I never learned to regard any one creed or belief as more privileged or better or less deserving of respect than the other beliefs."[2] She does also mention in correspondence that she was brought up to observe the holidays of the Julian calendar, as well as the Gregorian (current) calendar. "I naturally think in terms of two birthdays, two Xmases, etc. It is fun. If things don't get done by the new calendar there is always the old one to fall back on."[3]

Her parents had three other children, but Mary was the only one to live beyond infancy.[4] The family moved to Council Bluffs, Iowa when Mary was a girl and she went to elementary and high school in that Midwestern city. Council Bluffs was a busy railroad town. Earlier in the 1800s it was the beginning point of the Mormon Trail and other Emigrant wagon trails west. As railroads developed it became a railroad hub for several different lines and in 1869 the mile 0 of the Union Pacific link that created the first transcontinental railroad. Mary's father was a railroader.

Mary's mother and father were divorced in 1918. Her father later remarried, but Mary's mother did not, living with her remaining child, Mary, for the rest of her life. During Mary's high school years, she and her mother lived on South 25th Street in Council Bluffs (1920 census) and on 13th Street in 1925 (1925 census). According to a reference librarian at the Pottawattamie County Genealogical Society, this area of town was where railroaders in Council Bluffs generally lived, and it was considered to be the "wrong side of the tracks."[5]

Mary attended Abraham Lincoln High School (Figure 2) in Council Bluffs, graduating in 1925. Figure 2 shows her senior picture from the 1925 *Crimson and Blue*, her high school year book. It lists Mary as a member of the "Normal Course", the teacher training track, Delta Tau (a high school sorority), Rifle Corps, 1924 President of the T. N. T. (The Normal Training Club, an organization for future teachers), and B. B. Team 1924.

A yearbook picture of the T. N. T. (Figure 2) shows her in the center of the group, with round glasses on her face and her brown hair in a short bob. The caption of the picture states, "The Normal Training Club is the only professional organization of the high school. Its purpose is to develop a stronger spirit of co-operation and, at the same time, to cultivate a sense of professional responsibility."[6]

High school life was not all serious, however. Unfortunately there is no photograph to

Figure 2. (Top) Abraham Lincoln High School, Council Bluffs, Iowa. Mary Rogick's senior yearbook picture, class of 1925. C. Group photograph of members of the T.N.T. (Abraham Lincoln High School Future Teachers' Club). (Postcard image of ALHS, early 1900s; 1925 ALHS Yearbook photographs, courtesy Pottawattomie County Genealogical Society, Iowa.

accompany the other mention of her in the yearbook, at the graduating class's evening program, when it was announced that "Mary Rogick and Eileen Heuermann will entertain us with a bizarre (?) Grecian interpretation including balloon, barefoot and scarf work".[7]

3. Professional Education

Mary moved to Lincoln, Nebraska shortly after high school graduation to study at the University of Nebraska. She obtained her A. B. in Education in 1929, then went on to take her A. M. in Zoology in 1930, where she was Phi Beta Kappa. Her thesis title was "The comparative histology of the digestive tract of a minnow (*Campostoma anomalum*)." Dr Irving Hill Blake was her thesis advisor. The *Journal of Morphology* article[8] was her first

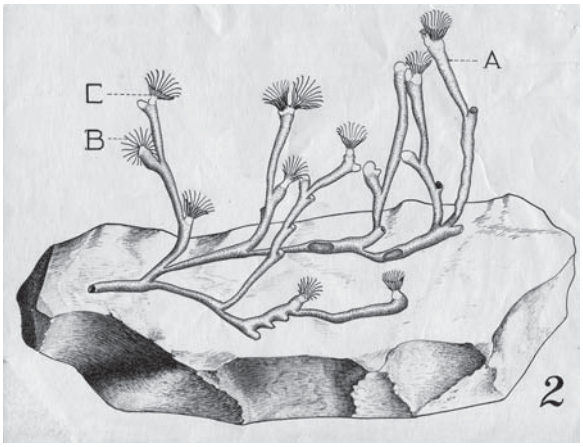


Figure 3. One of the original illustrations by Mary Rogick from her Ohio State Ph.D. dissertation on the Bryozoa of Lake Erie.

publication, but she had apparently already decided that she wanted to be a college teacher and research scientist rather than a K-12 teacher, as she had planned in high school. To qualify for a college teaching job she needed a Ph.D. degree. She studied for that degree at Ohio State University under the supervision of Dr Raymond C. Osburn, a well-known bryozoan taxonomist, receiving her Ph.D. in Zoology in 1934. During the summers of 1932 and 1933 she attended courses in Ecology, Algology, and Research at the Franz Theodore Stone Biological Station at Put-In Bay on Lake Erie, and carried out her Ph.D. research project there. Her dissertation was on the freshwater Bryozoa of Lake Erie[9] One of her original illustrations is shown in Figure 3.

4. Professional Life

Graduating in the middle of the Great Depression made job hunting difficult for anyone, but the task was even more daunting for a woman scientist. With her usual whimsical sense of humor Mary documented her educational history and job search in a series of cartoons (Figures 4 and 5) that she created for her 25th high school reunion. In the first cartoon of Figure 5 a wet and baffled new Ph.D. stands in the Depression storm.

The 1982 book by Margaret Rossiter[10] showed that while the number of Ph.Ds awarded to women in the sciences increased substantially during the time period from 1921-1938 (from 4.7% in 1921 to 7.0% in 1938), listings in the 1938 *American Men of Science* showed 8.9% of the Ph.D. women were unemployed, vs. only 1.3% of men. The strategy of the women of Mary's generation, in contrast to that of the previous suffragette generation who had pioneered women's entry into professional science, was apparently much less confrontational. Rather than documenting inequalities and trying to change them, most women who persisted in science during that time did so by the "Madame Curie" strategy of "deliberate overqualification and personal stoicism."[11] This led to professional success for some, but personal constraints for most, including the necessity to stay single (married women were expected to resign their positions) and sometimes nervous breakdowns from overwork.

While Mary searched for a professional position, she worked as a research assistant in Frank A. Hartman and Katherine Brownell's adrenal physiology lab at Ohio State (August 1935 to February 1935) (Figure 5). She later told Libbie Hyman, "I can still smell that rat

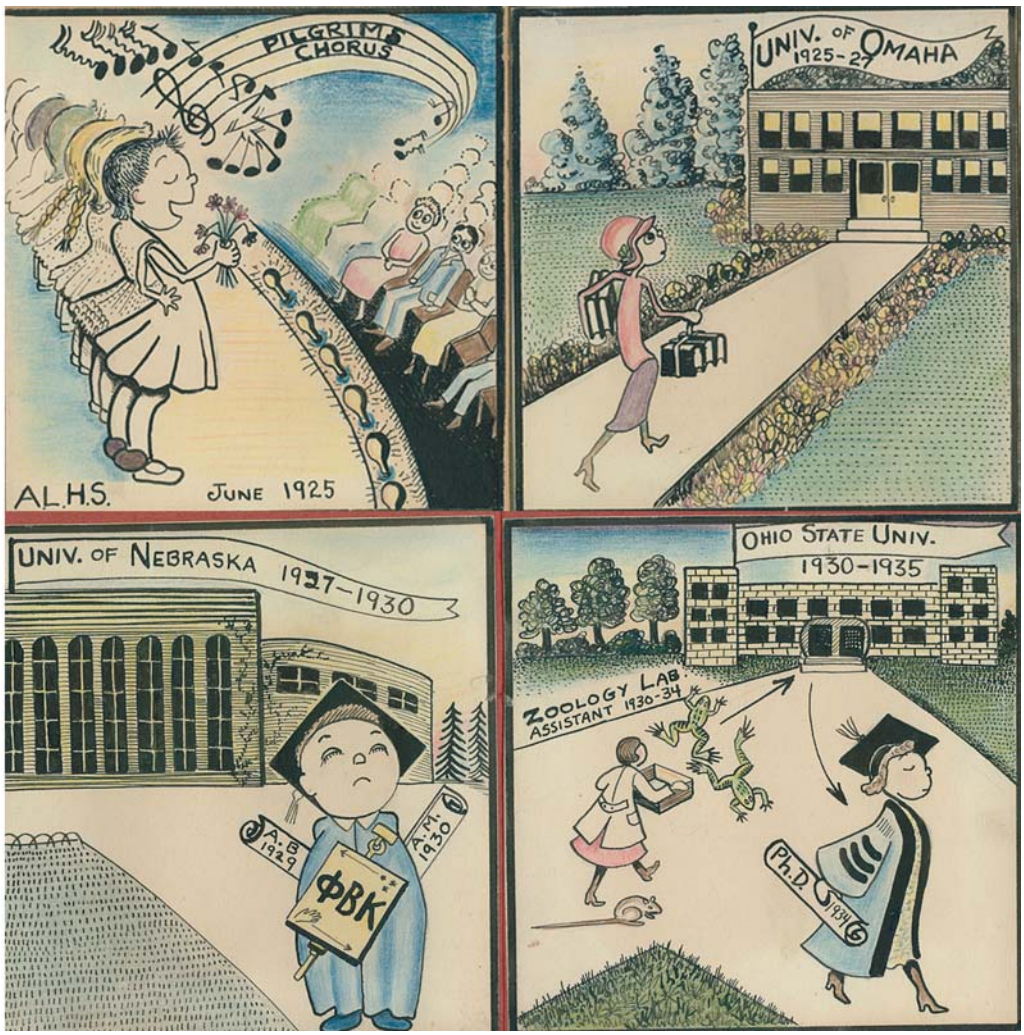


Figure 4. Mary's Rogick's cartoon illustrations of the four educational institutions she attended. (Courtesy College of New Rochelle Archives).

colony of theirs! — 900 rats at its height, plus a bunch of cats, guinea pigs, mice, dogs, and even a monkey. Give me Bryozoa any day,"[12] but Hartman and Brownell became long-time friends meeting again in summers at Woods Hole.

Mary wrote more than 200 letters seeking a teaching job before she finally received an offer from the College of New Rochelle, in New Rochelle, N. Y., very near New York City (Figure 6). She joined the faculty there in 1935. A college newspaper article written soon after her arrival described her as a lab-coated figure with lively brown eyes, an irresistible smile and a warm and sincere enthusiasm.[13] She stayed at New Rochelle for the rest of her life, eventually becoming a full professor and for a number of years (more than she wanted) Chairman of the Zoology Department. Lay faculty salaries were low. Mary's

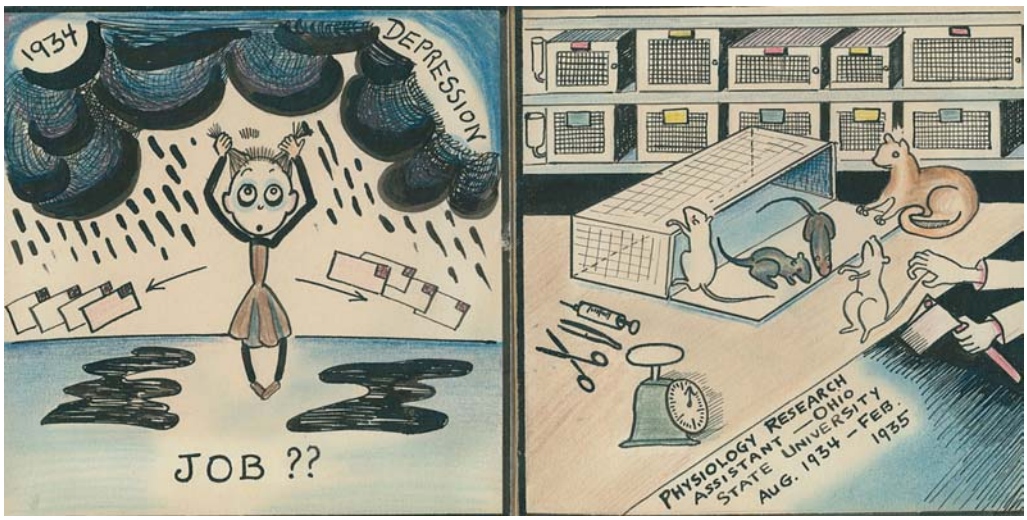


Figure 5. Mary Rogick's cartoon illustrations of her professional job search in mid-Depression days and of her job in the adrenal physiology labororatory at Ohio State while she searched for a professional position (Courtesy College of New Rochelle Archives).

starting salary was $2700. On that she supported herself and her mother and any research related travel or supplies. By 1955 her salary had increased to $5200, an amount that seemed adequate to her, "I never thought I would earn that much."[14]

She and her mother took up residence in a 3½ room apartment at 25 Prospect Street in New Rochelle where they lived until her mother's death on March 21, 1951, and where Mary continued to live until her own death. She wrote to a friend, "We have always lived together. I was her last remaining relative and took care of her."[15]

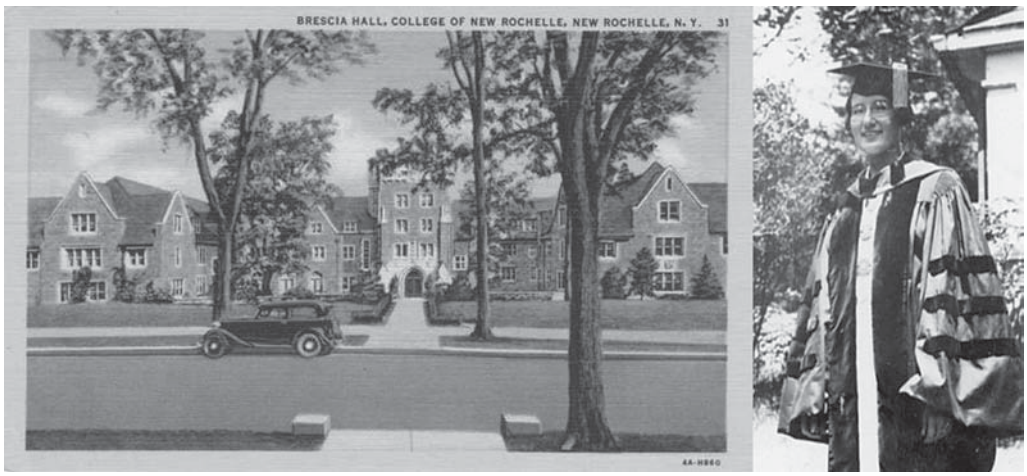


Figure 6. The College of New Rochelle. Postcard view of the College in the 1920s. Dr Mary Dora Rogick in her academic regalia, 1930s. Photograph Courtesy College of New Rochelle Archives.

Teaching

Mary taught an assortment of biology courses during her academic career including Zoology (beginning and advanced), Animal Biology, Histology, Comparative Anatomy, Genetics, Embryology, Microtechnique, Hygiene, Physiology, Parasitology, Ecology, Biological Literature, and Teaching of Biological Science (Methods).[16]

Teaching took up almost all of Mary's time during the academic year. "During the school year (from September to June) I teach Zoology to first-year college students, Comparative Anatomy of Vertebrates to second year college Biology majors and Histology to third-year majors (Figure 7). During the summer (June to Sept. 1) I do my bryozoan research".[17] But she clearly enjoyed her students and her teaching activities. In later years she apparently thought of finding a different job where the students might be more serious. She wrote "the students are most congenial & a lot of fun but unfortunately few have the burning scholarly zeal that I wish for." But in the same letter she stated that "I hesitate to make a change unless a better job than I already have comes along."[18]

Grading exams, papers and lab reports was never the best part of the job, of course, but she managed to keep a sense of humor about it, "Tortured poor innocent students with peculiar form of torture known as Essay type final exam.... After the students had taken the agonizing cure it was my turn. Would you believe it—it took me 47 hours to grade 88 freshman exams.... Golly, I thought I'd float off on a sea of ink & letter crested waves." [19]

In later years she did lament the biochemical trend in the teaching of biology, as she wrote to George M. Moore at the University of New Hampshire, "Thank goodness I had the traditional type of zoology and botany rather than the warmed-over chemistry that is now passing for biology. I'm afraid our students are missing much of the joy of study of whole live organisms...." [20] However, she added, "Since most of our students who work in science jobs after college go on to work in places like Sloane-Kettering we find that the biochemical or molecular biology approach serves their purpose best."

She had little patience for some of her other academic obligations, writing to R. S. Bassler, in 1956,

> The teaching I like, but the other "stuff" tries my patience. I have been waging a determined war against becoming enmeshed in various get-together, faculty discussion, cultural exchange gatherings where the faculty "shoot the breeze" among themselves or with the students — wasting precious time in what they think is stimulating intellectual activity but which usually ends up in the "philosophers" always haranguing the "scientists" about not broadening their outlook....Time I need. Wind I can do without.[21]

Continuing Education

Mary continued her own studies even after she had earned her Ph.D. and found a full time teaching job. She wrote to Elena Androsova that "During the summers of 1936 and 1937 I took courses (Physiology, Hygiene, Bacteriology) at Columbia University (N.Y.) and during the summers of 1938, 1939 I took Embryology and Invertebrate zoology at the Marine Biological Laboratory at Woods Hole, Massachusetts." [22]

Figure 7. College of New Rochelle and teaching career. Top. College of New Rochelle Science Building 1955. Dr Mary Dora Rogick and colleague Dr Mary Grace Connell on the steps of the Science Building, 1956. Bottom. Dr Rogick in biology laboratory with students, 1955. (Courtesy College of New Rochelle Archives).

Research

Research was not a necessity for College of New Rochelle faculty.

> "The teaching (plus a considerable amount of related clerical work—reports on student progress, grading of innumerable student papers, etc.) is a full-time occupation. What research I do is done entirely during the summer or during vacations or such time as I can squeeze out of my waking or sleeping hours and is not done on school time or required of me by the school since our teaching load is considered to be our full obligation to the school.... Over the years I have steadily done a little bit of research because I felt it to be an obligation to my own professional development and an obligation to the profession itself, even though the school did not expect it of me. I have derived a great deal of pleasure, as well as untold hours of lost sleep, from it." [23]

However, she realized that there were advantages as well in not being required to produce research. "In some colleges and universities a teacher is almost forced to do research in order to hold his position on the faculty. I am happy that is not the case here, because I work best when I am not under pressure, and also I can take more time to be careful, and careful research is the most desired kind." [24]

Space for research was lacking during the years Mary worked at CNR. The college was growing rapidly and the science building; relatively new when Mary arrived in 1935 seems to have had the lowest priority when it came to expanding the physical plant. Mary wrote that

> "...working space at college is so limited that my office is the storage-preparation room just off the zoology (student) lab and students are forever popping into my cubbyhole for glassware, supplies, or to soak their lab specimens (preserved).... Part of the bryozoan collection is kept at home. The rest (the part I work on currently or at the particular moment, as during the summer) is kept in my "office" at school where I do the microscopic work." [25]

Despite these constraints Mary seems to have focused on research whenever she had a spare hour, carrying out much of her taxonomic research on the kitchen table in her apartment, and very often giving up sleep in order to do so.

Freshwater Work. The first years of Rogick's research career were devoted to a continuation of her research on the biology and systematics of freshwater bryozoans. She produced a total of 18 papers on freshwater species. Many of them became classic sources on the biology and ecology of the group. Her freshwater work was cited more than a dozen times by Libbie Hyman in the Phylactolaemate section of volume V of *The Invertebrates*, published in 1959, and it is still in use today, although there have been some changes in phylactolaemate taxonomy since Rogick's work appeared, e.g. in 2002, Tim Wood reported that the species she had recorded from Pennsylvania as *Stolella indica* is actually *Plumatella rugosa*.[26]

Woods Hole Summers. After taking Embryology and Invertebrate Zoology at the Marine Biological Laboratory at Woods Hole, Massachusetts, in the summers of 1938 and

Figure 8. Summer marine research and teaching at the Marine Biological Laboratory, Woods Hole, Massachusetts. Top: In the laboratory, on a fishing expedition, and with a colleague on the dock. Bottom: Photograph of the summer marine invertebrate class, 1946. Mary is in the third row wearing her distinctive overalls. (Top 3 photographs courtesy of the College of New Rochelle Archives; Photograph of 1946 summer class, courtesy of Dr Mary E. Rice, a student in the class).

1939, Rogick was invited to teach in the MBL summer school only a few years later. She taught in the Invertebrate Zoology course during the summers of 1943, 1944, 1945, 1946 (Figure 8, bottom photograph), and 1947. It was hard work with long hours, but she found it enjoyable. She wrote to her friend Dr James Ackert,

> I have been at Woods Hole since July 1, and shall stay till August 31. For the first 6 weeks I have been teaching at the Children's School of Science here (a summer school similar to the Marine Biol. Lab courses but suitable for "small fry" of 7 to 16 yrs. (Of age). My group ranges from 11 to 16 years. Each member fairly bulges with questions. It is really almost as much work to teach youngsters as college students. These next 2+ weeks I shall be pinch-hitting for a member of the MBL Invertebrate course—this time teaching the college product which comes for the regular MBL course. That course runs on a 14 to 15 hour day as you perhaps know, —lecture at 9, then maybe a field trip (1/2 day or whole day), then back to lab to put specimens in proper containers before changing to dry clothes, then supper, then back at 7:30 p.m. for working over the collection & identifying specimens & writing up reports and by that time it is 11 p.m. or there-abouts. However, it is a lot of fun. The class goes on scheduled field trips RAIN or shine." [27]

Marine Work. Starting with the summer of 1943 her interest in marine bryozoans began to develop. She also began to become more of a specialist in bryozoan taxonomy, although she always kept the relationship of taxonomic with the biology and ecology of the living animals in perspective. Even in purely taxonomy papers she tried to note biological or ecological observations when possible. Teaching at the MBL summer courses gave her access to living marine bryozoans. It also gave her the opportunity to meet and make friends with some of the best professional marine biologists of her day, as well as, in the classes she taught, the students who became the next generation of professionals (Figure 8). She missed their company. As she wrote to a friend in the summer of 1948, the first summer she spent at home again, "Going to MBL and Woods Hole is like going back home to one's own family".[28] She returned to northeast coast bryozoans only briefly, producing the bryozoan section for the *Woods Hole Keys*, 1964.[29]

Antarctic Work. The last year she taught at Woods Hole was in 1947. Partly this appears to have been because she began to study a collection of Antarctic Bryozoa belonging to the Smithsonian Institution. Her mother's health was also declining at that time and Mary had to take care of her in addition to her other duties. As her opportunities for study of live material decreased she became more focused on the Antarctic work. She did visit Woods Hole again later in her career, but only for a few days at a time.

As often seems to happen in science, her work on Antarctic bryozoans started almost accidentally. As she wrote to Dr Frank Brown of Northwestern University:

> Last August I was in 7th Heaven, having cleaned up practically all the back research. Boy, was I going to take it easy (I thought)! I just had one more little paper (on an Antarctic bryozoan) which Wm Randolph Taylor had sent me) to finish. Then conscience poked a sharp finger in my ribs & I thought maybe it would be wise to ask permission of some higher up (in this case the Smithsonian Institution, from which the specimen had originally come to Taylor) before I

> barged into print with the fancy little bryozoan number. I asked, & got MORE than I had bargained for ——the Smithsonian, in practically the return mail offered me the whole darn Bryozoan collection which the U.S. Navy had collected during the winter of 1947-48 (in Jan & Feb) in their Antarctic voyage. So far I have pawed over at least 81 spp.—not one of which is like the Woods Hole stuff…every blame one of them a stranger.[30]

In September 1952 she applied for a grant from the National Science Foundation to support her work on the Antarctic collection. The funding she received in April 1953 paid for a new dissecting microscope and light, office typewriter, and supplies. She wrote,

> This summer I finished 3 manuscripts totaling about 150 pages of typing and 18 plates & these were finally sent to the Smithsonian to publish in the Proc. U.S.N.M.…I learned more basic zoology (taxonomic procedures, type selection, etc.) this year thru research than any amt. of reading (without research) could have taught me.[31]

Teaching Biology Papers. Rogick felt very strongly about the need to improve biology teaching. She published articles on teaching methods and in the summer of 1952 she taught a course in biology teaching methods at the University of New Hampshire. She wrote to a former CNR student, "The course is keeping me busy because the students in it are high school teachers of several years experience so I have to teach on a different level. They are very eager to learn. We went on a field trip to a freshwater mucky pond last Thursday. It was fun. The course hours number $16^{1}/_{2}$ per week."[32]

Professional Service. Over the years Mary contributed articles on bryozoans to encyclopedias (e.g. *Encyclopaedia Britannica* and *McGraw Hill Encyclopedia of Science and Technology* and reviewed books about bryozoans for journals. She provided the chapter on Bryozoans for Frank Brown's book, *Selected invertebrate Types*.[33]

Her most time consuming contribution was to serve as a section editor for *Biological Abstracts* (1957-1964). In a letter to Dr Fenner Chace at the Smithsonian she wrote:

> The BIOLOGICAL ABSTRACTS has just, with blarney and wile, asked me if I would take on the late Dr. Osburn's duties (very light they assure me) of editing the Bryozoan Section of the Abstracts. Dr. Osburn would be pleased that it passed on to one of his students…Dear Dr. Irving Hill Blake, of the Univ. of Nebr. Under whom I got an A.M. degree back in 1930 got me involved with abstracting for Biol. Abstr. Way back in the early 1930's, and I did quite a bit of it, tho haphazardly and at irregular intervals thru the years. It was wonderful training.[34]

Despite her initial pleasure at the invitation abstracting brought its own aggravations, as she wrote to a friend at the University of Louisville, Kentucky:

> In fact I find myself devoting almost as much time to the non-paying chores like abstracting, research, science societies involvements and similar associated "extracurricular" chores as I do to the teaching job the brings in the bread, butter and bacon.… I just got thru translating a 21

> page French article on bryozoan gametogenesis and budding and making a sizeable abstract of it——with the aid of 2 dictionaries, a French grammar and all my stock of ladylike cuss words….[35]

But in the same letter she added, "all those "frills" and side-activities are important too because they enrich the teaching and our students are the indirect as well as direct beneficiaries. I do not envy the teacher who does just his teaching job and no more because I think he is losing out on a lot of valuable training that he cannot pick out of text books."

Society Activities. Mary participated in a number of scientific societies during her career including the American Association for the Advancement of Science, American Microscopical Society, American Society of Zoologists, Ecological Society of America, Ohio Academy of Science, Marine Biological Association, American Association of Limnology and Oceanography, National Association of Biology Teachers, Society of Systematic Zoology, Sigma Delta Epsilon (Science Women's Society), and Phi Beta Kappa.[36] She seems to have been most involved in Sigma Delta Epsilon (now called Graduate Women in Science), and was involved for several years in finding speakers for New York City meetings.

In 1953 Dr Waldo Schmitt of the Smithsonian Institution asked Mary to participate in a symposium on lophophorates at the annual meeting of the A.A.A.S. in Boston, Massachusetts. Mary was asked to speak on "Why Entoprocta and Ectoprocta should be put in the same phylum." Libbie Hyman was supposed to moderate the session and Mary was extremely anxious all that autumn about the presentation and possibly facing off with Dr Hyman. In early November she wrote to the Marcuses:

> Dr. Hyman thinks they should be 2 separate phyla. . . . I dread the prospect of facing such a formidable and well-informed opponent, particularly as I have no very good arguments to support my stand at the moment! Any good arguments you can offer for putting Entoprocta and Ectoprocta into one Phylum, the Bryozoa, will be welcomed with the greatest joy. What I am afraid of is that I shall agree with Libbie Hyman if I keep reading her texts and do not read convincing enough proof from other sources, and that most surely would never do![37]

As it turned out, the symposium went well, and Libbie did not give her the cross-examination she dreaded.

5. Personal Life

Mary never complained about living with her mother, Sara. Over the years she and "Mamma" had worked out a system for sharing the housework and shopping that freed up more time for Mary to work. Before her mother's eyesight failed, they also sewed most of their own clothing. Some of Mary and her mother's activities wound up as cartoons in her correspondence (Figure 9).

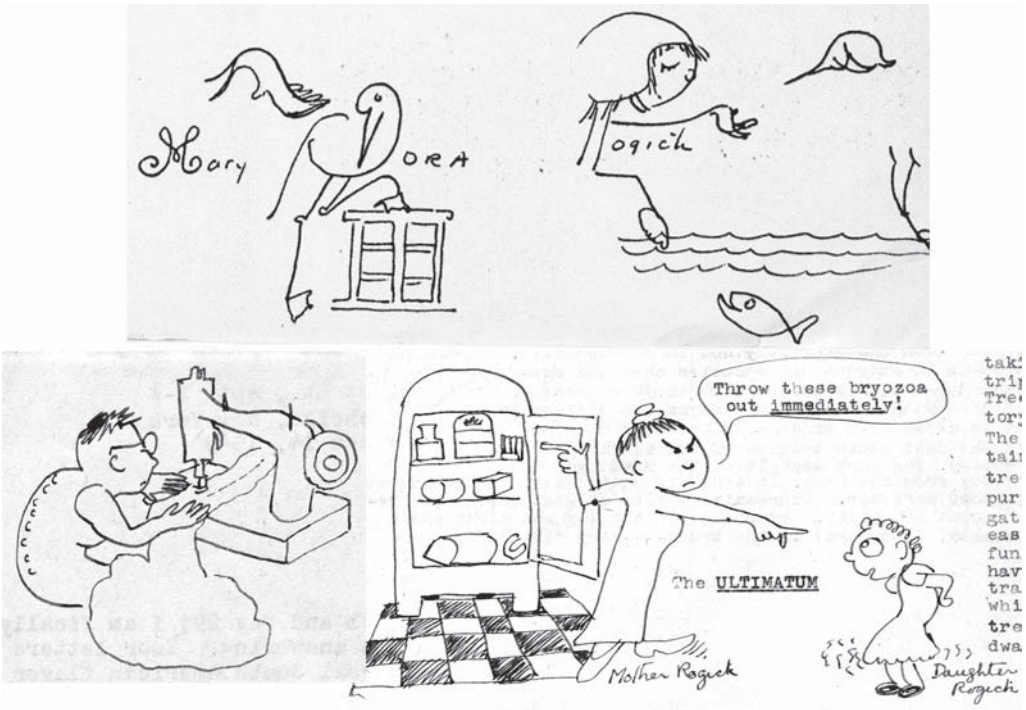


Figure 9. Drawings about her personal life from Mary's correspondence. Top. Learning to swim. Bottom Left. Sewing a new wardrobe during the summer break. Bottom right. Her mother's reaction to Mary's keeping phylactolaemate statoblasts in the kitchen refrigerator.

Although she apparently had no contact with her father once her parents were divorced, she and her mother did correspond with her mother's family in Europe, except during the WWII years. In April, 1946, she wrote to the Marcuses:

> We have just established contact with my mother's family in Croatia (Yugoslavia). They are scattered and some are missing due to the war. We have had only 1 short letter from them and do not have the full particulars as to how they fared other than that they lost homes, clothes and livestock. They lived about 50 miles south of Zagreb where there was a lot of fighting. Mother and I spend most of last week buying and packing material and food for them.[38]

In the late 1940s her mother's health began to decline. After a couple of years of increasing illness and blindness, she finally died of uremia and gradual heart failure on March 21, 1951, aged 67. Mary wrote "I miss her very much but fortunately so much work had piled up during her illness that the work kept me from thinking about her loss too constantly."[39]

Since her mother had done the cooking for the household, after her death Mary struggled with learning to cook for herself. "So far I have held up magnificently under my own cooking, though losing weight (a goal I am aiming for) has not been achieved—mostly because of genuine lack of will power! Can't get below the 143 pound mark

without cutting down on food! As for housecleaning—the less said the better." [40]

Interests. Mary was a skilled artist and cartoonist whose drawings and cartoons enlivened her articles and her correspondence with colleagues. She also illustrated a book called *Are You Your Garden's Worst Pest,* by Cynthia Westcott.[41]

She tried painting in oils also. She wrote to her friend J. E. Gray at Duke University:

> This winter I've been "making like Rembrandt!?" or learning how to paint in oils, one night a week in art class. The subjects: all complicated Woods Hole scenes. The results: not half bad! The score: 3 small oil paintings-everything in them recognizable and according to our art teacher—Walter Beach Humphrey[42] —"scientific" if not artistic. . . . The painting is a lot of fun and much more enjoyable than stippling, but there is really very little time for it.[43]

She apparently kept up her interest in painting. A 1956 letter mentions that she had spent an hour teaching the daughter of an apartment house neighbor the basics of oil and water-color techniques.[44]

A correspondent once asked her how she got started on her characteristic cartoon signatures. She replied:

> My friends all enjoy the latter and expect them on every letter. If the funny pictures aren't forthcoming the very well-meaning friends think I'm sick, or that something drastic has happened to me. So I try to please and entertain them. The caricatures are a rebellion against the large amount of deadly, dreadfully dull scientific writing thru which I have to "wade" in the course of my teaching or research.[45]

Figure 10 shows a page of doodles from a piece of scrap paper found in her correspondence files. Her use of initials and random ink squiggles as starting points for drawings and signatures in her letters is interesting in view of her original plans to become a public school teacher. The subject of one of her papers for the *American Biology Teacher* was the use of cartoons and simple sketches as visual aids. Art and English teachers still use squiggle drawings today to encourage creativity in students and lesson plans incorporating them can even be found online. Squiggle drawings are also used by professional cartoonists and child psychologists. Figures 11 and 12 show some examples of drawings and signatures from her letters. Figure 11 shows some of the varied hairstyles found in her signatures over the year. Figure 12 shows a bryozoan cartoon and a bryozoan signature.

Mary Rogick learned to swim as an adult (Figure 9). This endeavor initially began because of the sinking of the Woods Hole boat which her class had used for collecting the previous summer. That event made her realize her vulnerability as a non-swimmer. As she said to Libbie Hyman, "It is the only exercise that I've ever taken that didn't wear me out or get me frightfully winded (outside of walking).[46]

She liked to read for pleasure when time permitted, as in the summers. "The N. R. Public Library has a wonderful collection of adventure and biographical books. I manage to read one or 2 books each 2-week borrowing period although the time is spent grudgingly

Figure 10. Page of doodles on scrap paper from her correspondence files, perhaps to generate ideas for her unique squiggle signatures.

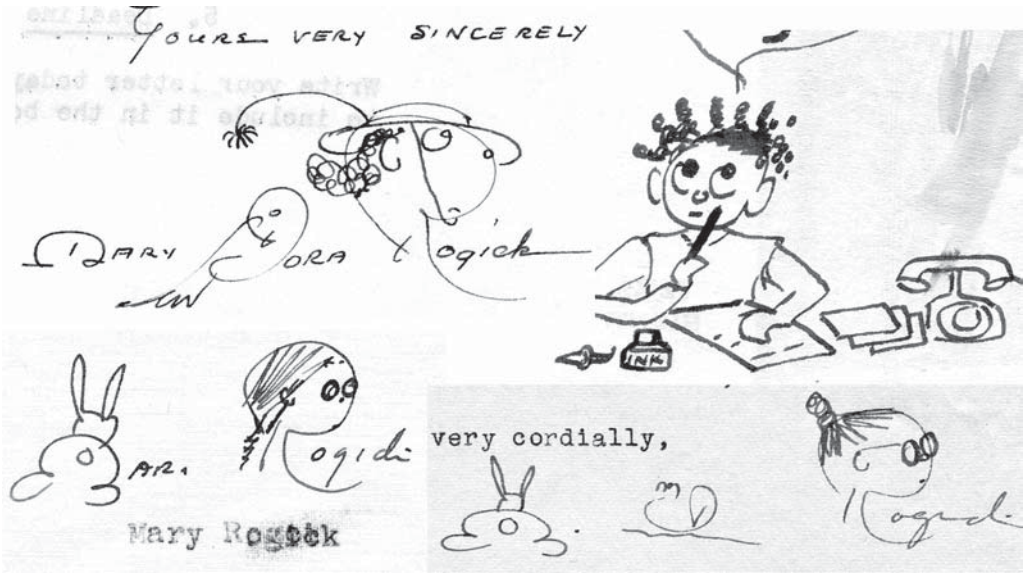


Figure 11 Hairstyle squiggle signature drawings. In real life Mary changed her hairstyle very little, but on paper her signature's coiffure varied.

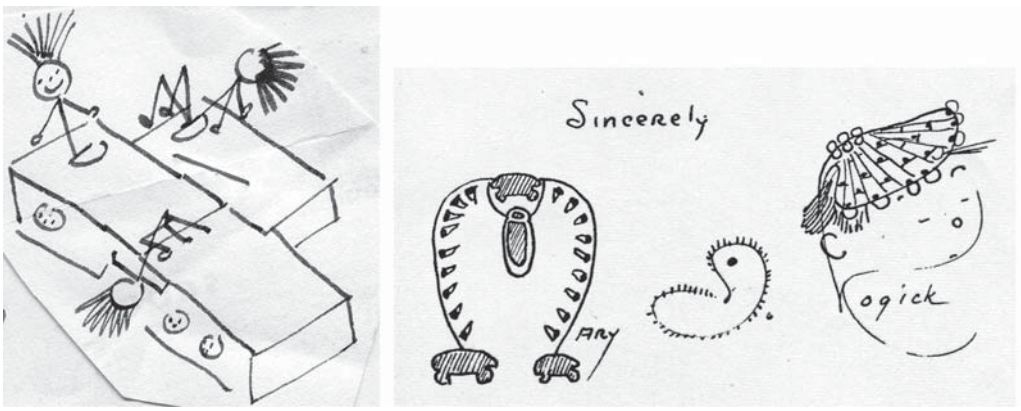


Figure 12. Bryozoan drawings.

but very enjoyably. The Puritan-Slave Driver in me surely is hard to live with sometimes."[47]

Once Mary moved to New Rochelle she seems never to have travelled beyond the northeastern part of the U.S., although in letters she expressed her desire to do so. For example, "I enjoyed your letter, and the Arizona picture made me want to start travelling. Someday I shall take time to see some of the wonders of our great and beautiful country but it won't be until the blasted Antarctic project is done."[48] Unfortunately, that time never came.

6. Correspondence

During the earlier part of her career Mary devoted a considerable amount of time to answering requests for identification of material collected by other scientists. Sometimes the inquirer was knowledgeable, more often the request was similar to this one from a North Dakota ecologist, "I have taken some clumps of material from a local fresh-water lake that appeared to be a bryozoan. I would like to know if you would make identification for me…." [49]

Until the late 1950s she seems to have carried out such identifications, but at that point she had become so immersed in her Antarctic work that she had to turn both identification requests and new projects away. "The fact is I'm tied up with too many research commitments already. The most pressing one is the Smithsonian collection which I should like to finish while it is still covered by a research grant. It is going to tie up the next three summers." [50]

Mary continued to respond politely, if negatively to such requests throughout her career, but her real energy lay in corresponding with her friends, former students and other scientists, especially those studying bryozoans.

Exchanges of letters with the professional bryozoan workers often began with her requesting reprints of their publications to increase the personal collection of bryozoan taxonomic literature so urgently needed in her own work. But as the exchanges continued, long-distance friendships developed. She told her bryozoan correspondents much about life in New Rochelle, her college teaching and research and, they often reciprocated with personal stories of their own. Some, like David Brown, who stopped on his way back to New Zealand from a stay in England, even came to visit her in New Rochelle.[51]

These long-distance friendships filled a gap in her life, crowded as it was with the demands of students and her own drive to do research despite the lack of space at CNR. Her CNR colleagues remembered her as shy, but her egalitarian mid-western friendliness and irrepressible sense of humor come out in her whimsical drawings and stories in letters to friends. Some of her frequent correspondents were Anna Hastings, Libbie Hyman, Ernst and Eveline Marcus, R. C. Osburn, and in later years, Elena Androsova.

Raymond C. Osburn. Mary continued corresponding with Osburn and his wife for many years after her graduation from Ohio State. Two years after her graduation he wrote encouraging her to continue her research, "I hope you have not thought of giving up work on the Bryozoa. As I have told you, you are in the best position of anyone in the country to become an authority on the group."[52]

As her research skills and interests developed they also exchanged scientific information and opinions. While working on part 3 of the Pacific Bryozoa, Osburn wrote:

> Canu and Bassler did a lot of good work on the ovicells and certainly stressed their importance, but they failed to take into account the possibility of parallel evolution in the development of the ovicell and, I fear, followed their own scheme to rigidly. At any rate, strictly following the

ovicell as the only criterion certainly makes for a strange lot of bed-fellows.
On the other hand the identification of species without the ovicells, as the forefathers of bryozoology did, is very much worse, and certainty is usually impossible.[53]

Ernst and Eveline Marcus (Figure 13). The first message from the Marcuses was sent in June 1937 after they had arrived in Brazil. It was a postcard with a brief request from Ernst, "May I ask you to be so kind as to send me a copy of your studies on freshwater Bryozoa V and also of all your future publications because I am still working on Polyzoa…." [54]

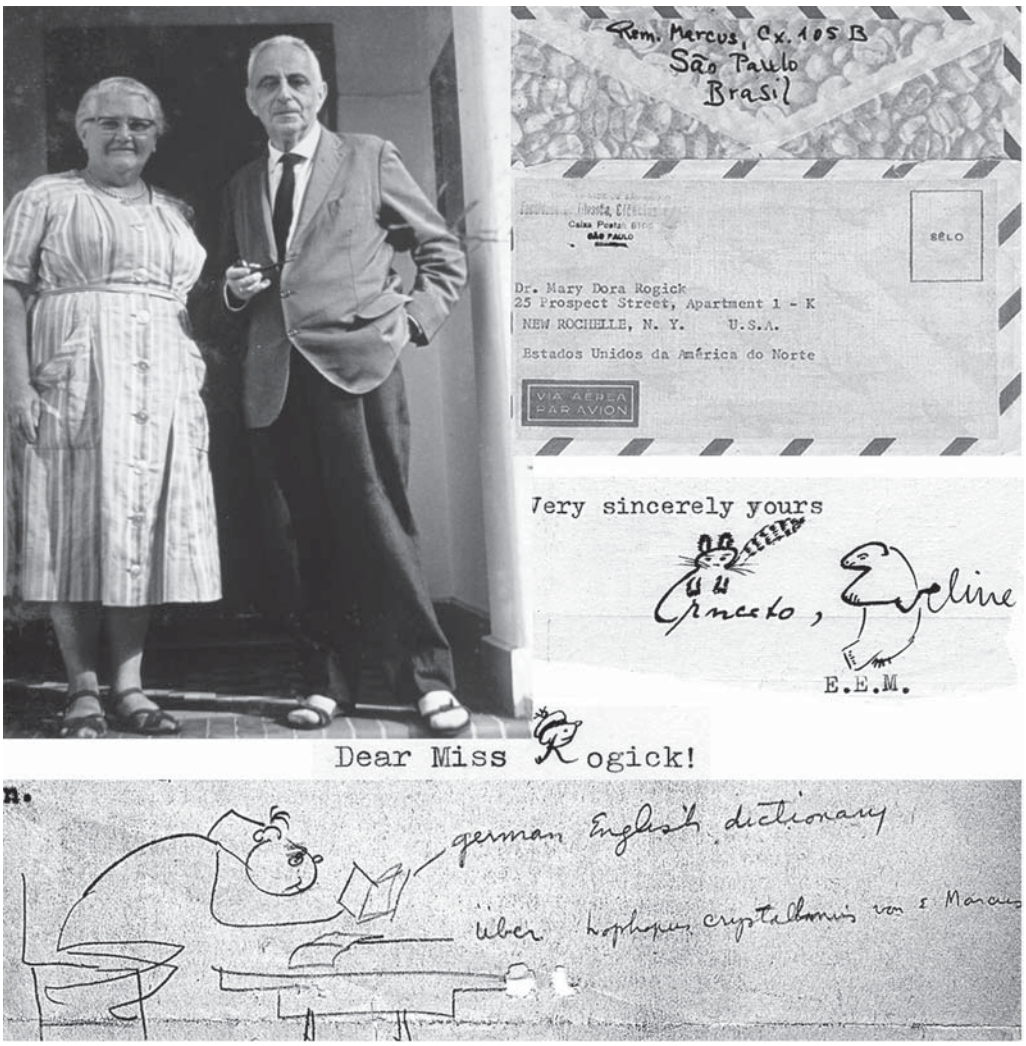


Figure 13. Correspondents: Ernst and Eveline Marcus. Envelope of letter from the Marcuses in Brazil. Greeting to Mary and signature drawn by Eveline Marcus. Mary's drawing of her difficulties in translating a German article by Ernst Marcus.

Within a year, the letters between them had become much longer and more personal. They paid her compliments on her scientific illustrations as well as those in her letters, ". . . . Your art has already proved itself in Dr. Osburn's paper on the Mount Desert Bryozoa, but it seems, that you every time reach a higher degree of skill and beauty.[55] They managed to exchange letters even during the years of WWII and after, giving each other news of other bryozoologists and scientists in Europe, e.g., "You inquired why Dr. Hastings is working on the Siboga Monograph. It is because Dr. Harmer is now too old and ill to do it so she has kindly taken the work on her able shoulders."[56]

One of Ernst's former students, Marta Vanucci Mendes, was at Yale for a year, and Mary met her at Woods Hole in 1946. She wrote, "I did so enjoy knowing Marta, little Erico and Erasmo Mendes and talking with Marta about you."[57]

Anna Hastings (Figure 14). Her correspondence with Anna Hastings lasted from 1934 into the early 1960s. They exchanged both information about their respective lives and their scientific work. In 1941, Mary sent a food package for her war-battered friends' Christmas, "Dear Dr. Hastings, Did you ever receive the food packet which I had sent from a New York store to reach you by Christmas? Would you let me know if it failed to reach you?"[58]

I hope that you received a letter from me, crossing yours, telling you of my marriage in June, 1941, and that we were looking forward to a baby. . . .Our son, James Dighton Thomas was born on Sept. 3rd, 1942, and is a strong and lively fellow. . . That letter also thanked you very much indeed for your excellent food parcel. It was such a kind thought and the contents very welcome.[59]

> You must be wondering what has happened to me. . . . In 1950 I was short handed in the house the whole year, sometimes no help at all, and husband and son both had ailments of various kinds involving bed and care, and, at long last, we had our war-damage repairs done (every ceiling in the house). That was the home front. On the scientific side, I still have Sir Sidney Harmer's Siboga MS and my own reports on Chaperia and Arachnopusia, which were virtually complete 8 years ago, to get into shape for press.[60]

Russian Workers. G. G. Abrikosov and Elena Androsova (Figure 15). Once correspondence with people in the USSR became easier, Mary undertook correspondence with two of the Russian Workers. In 1958 she wrote to Abrikosov,

> My bryozoan research progresses slowly because there are so many diversions and because it can only be done during the summers. The diversions however, are altogether pleasant. One of them, the abstracting and editing of bryozoan literature for BIOLOGICAL ABSTRACTS, is most gratifying, because it enables me to know what research is being done in the field. Although I am in touch by correspondence with many of the bryozoologists there are still a number with whom I should like to establish contacts and the abstracting helps in that. During the summer (June to Sept.1) I do my bryozoan research. For several years now I have been working on a collection of Antarctic Bryozoa which the U.S. National Museum, Smithsonian Institution, has lent to me to work up. There remain about 3 or more summers' work on the

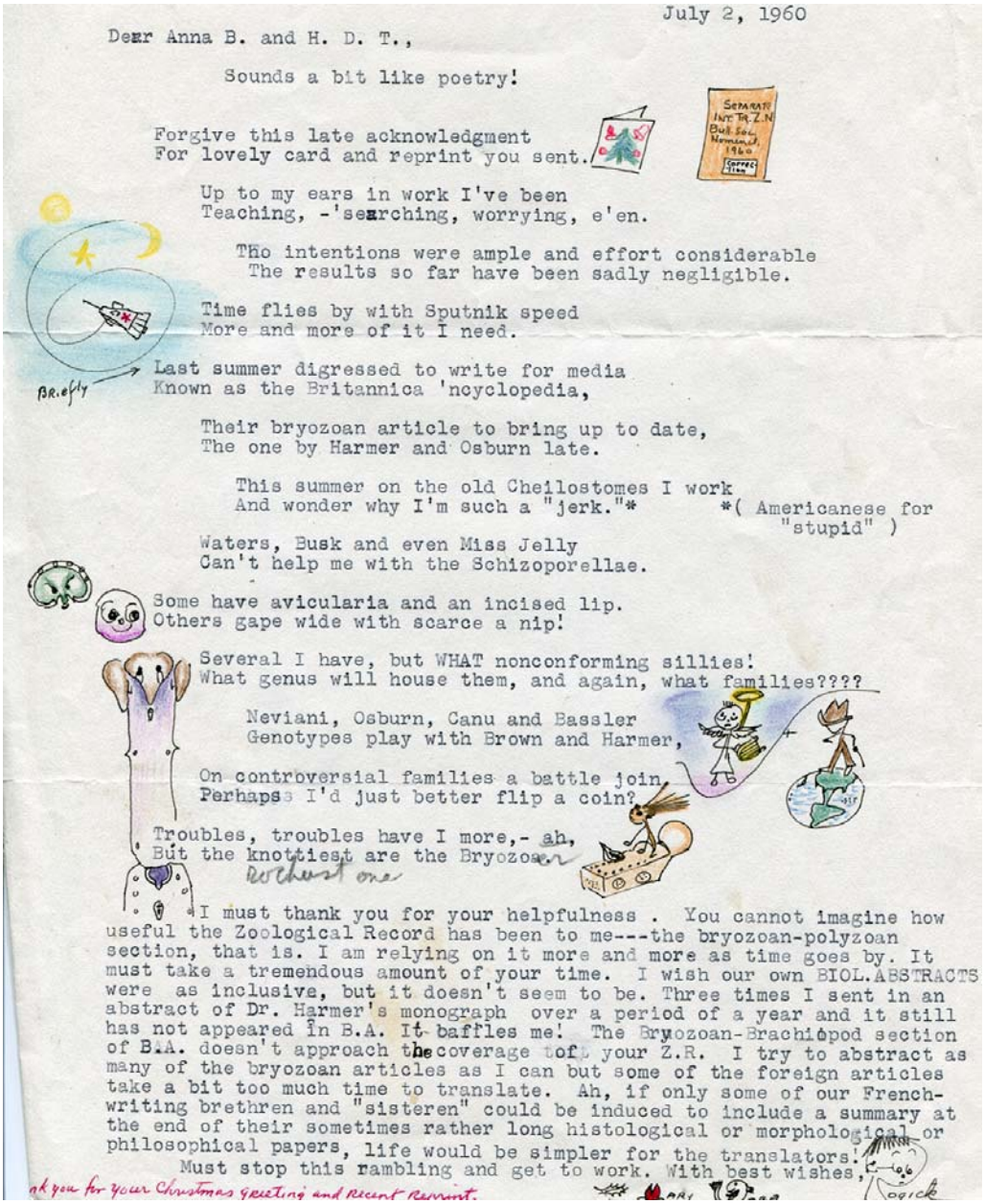


Figure 14. Correspondents: Anna Hastings.

project. I keep publishing small papers on it after each summer so that the work is always progressing a bit. In that way, each summer's work is generally published by the time the following summer comes around. One of my biggest difficulties is finding journals which will accept the taxonomic type article for publication…."[61]

And later that year she wrote,

> I do not know Russian, but at am willing to learn although it may take me a VERY LONG time! My parents were from Croatia and we spoke that when I was a child but my knowledge of it is imperfect – very ungrammatical and rather phonetic. We used both Latin and Cyrillic script but it has been so long since I did any reading in the later script (outside of trying to translate enough of the Russian articles on Bryozoa in order to write abstracts for BIOLOGICAL ABSTRACTS) that I get mixed up on some of the letters.[62]

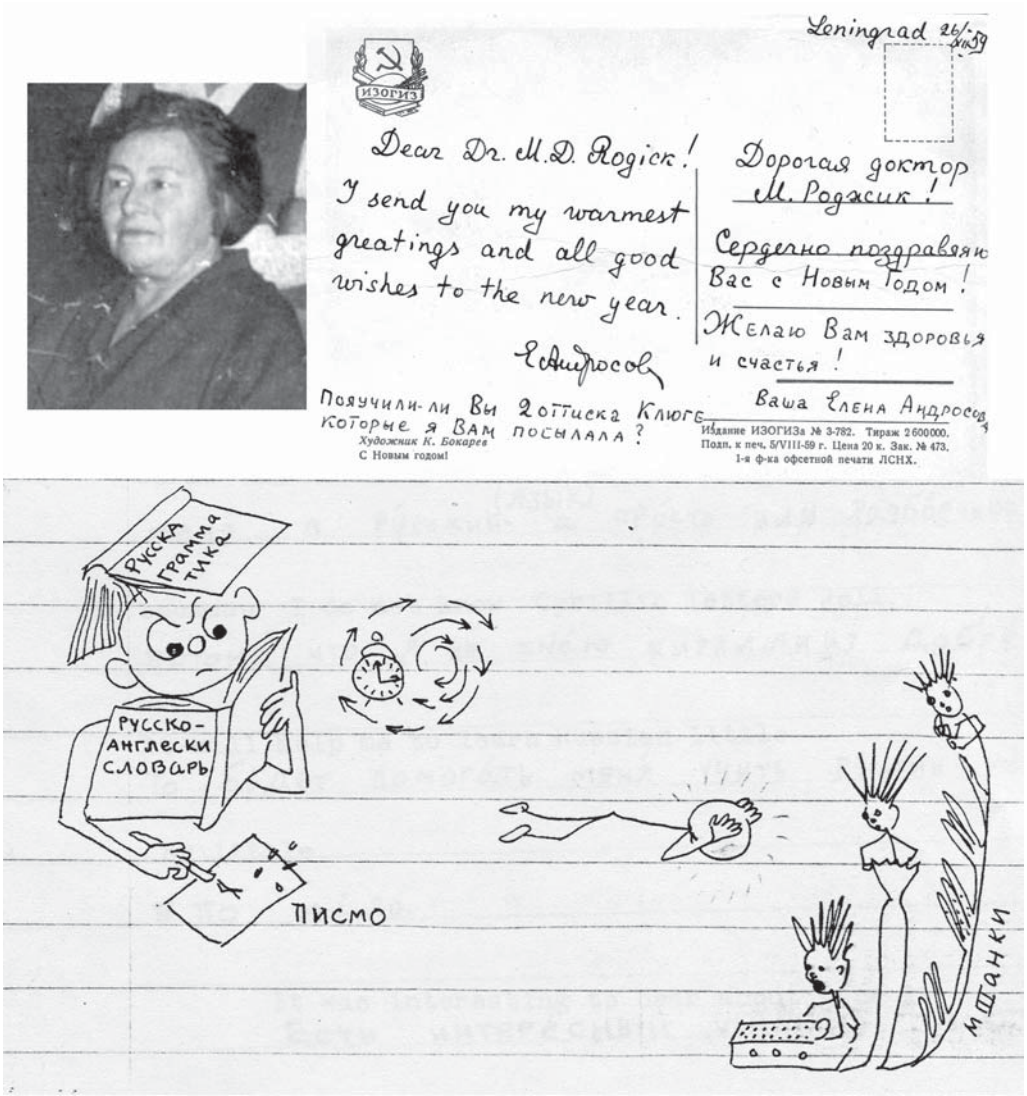


Figure 15. Correspondents: Elena Androsova. The two corresponded in both Russian and English.

Her letters to Elena Androsova also covered personal and scientific topics. Some of them Mary wrote in painstaking Russian, telling Elena first that

> I have at hand 2 Russian dictionaries (Alexandroff 1923, Segal 1958) and 2 Russian grammars (Magnus 1917, Motti 1922) but, unhappily what is inside THEM is not inside MY HEAD. However, after a real effort, I managed to write an abstract of your North Japanese Sea paper for BIOLOGICAL ABSTRACTS. It took me most of a whole day to translate the first page of your paper and to make an abstract of it—so you can see I am not very proficient, —or better say I am more determined than persistent.[63]

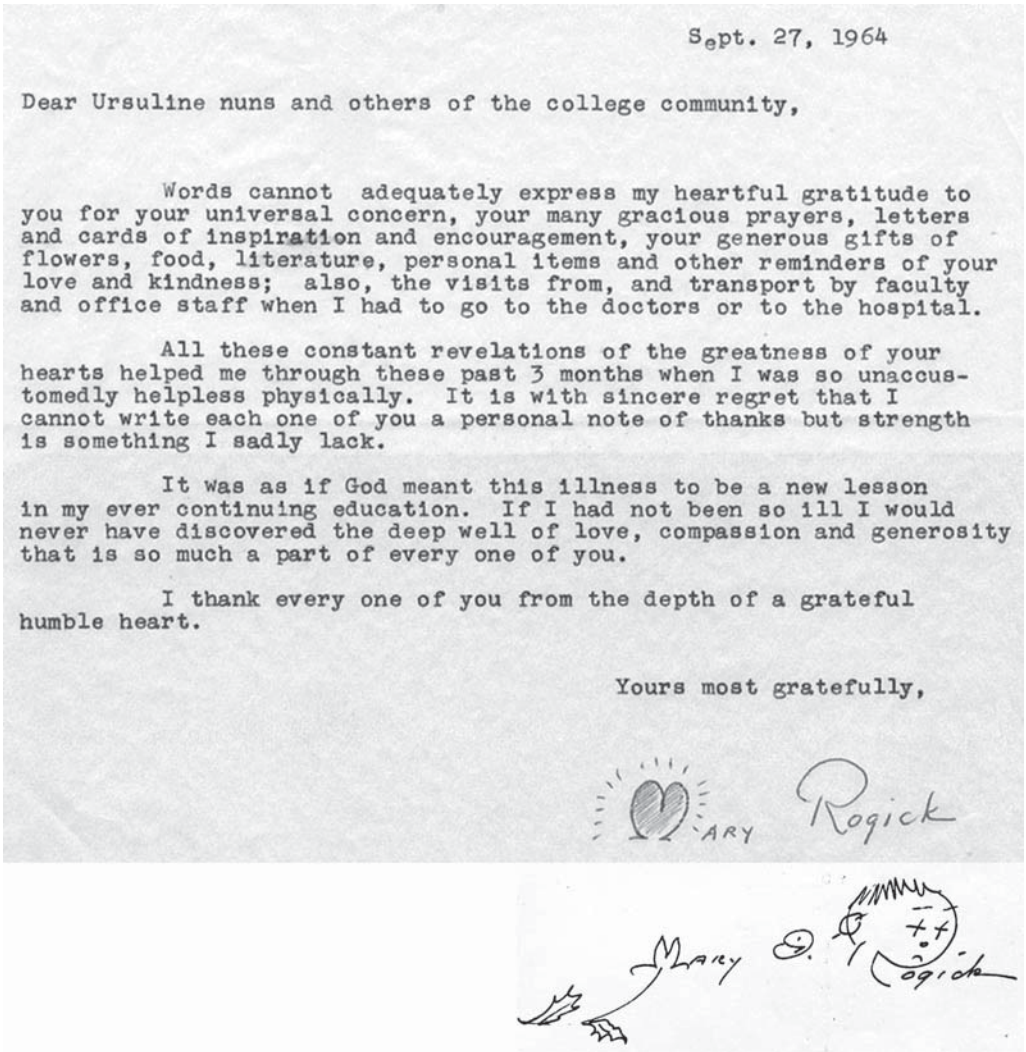
Younger Bryozoan Workers. Although she concentrated mostly on her Antarctic work in later years, she still corresponded with freshwater biologists, giving graduate students such as John H. Bushnell, then at Michigan State, her advice on describing phylactolaemates, "…you should include pictures of the statoblasts (both faces and edge), measurements of the statoblasts, pictures of the growth habit of the colony, make tentacle counts and get the shape of the lophophore itself. Even if your identification is faulty at least if the pictures are included and measurements given whoever comes after you can check as to the accuracy of your identification or at least know what you had."[64]

She gave similar advice to John S. Ryland, in a letter telling him that she had sent him a batch of *Bugula* from Woods Hole, "My sympathies to you on your struggles with the Bugulae….Isn't bryozoan taxonomy a glorious mess! One can work up a full-blown case of frustration, mental collapse, hallucination, or what have you by trying to unravel some of the synonymy. But keep "plugging" away. If you just include enough good clear drawings illustrating your points you will do a great service to all your colleagues and those who come after you. Harmer's and Ann B. Hastings' works are most admirable examples to follow."[65]

To Tom Schopf, then a new postdoctoral fellow at the MBL, who wrote her in early October, 1964, she responded with what may have been her last letter of encouragement. "You have my blessings and good wishes for your projected study of Woods Hole & New England Bryozoa. It in no way infringes on my "territory"….Unfortunately, I can't be of any help to you on the WH & NE bryozoa because of a severe illness at present…."[66] This letter may have been her last scientific correspondence and her last signature (Figure 16). She died less than two weeks later on October 26, 1964.

7. Final illness

Mary's terminal illness seems to have progressed rapidly. The previous summer she had taught a summer course in Invertebrate Zoology at the University of Rhode Island and participated in a research cruise that was one of the peak experiences of her life. There are no mentions of illness in any of her letters that winter or spring, but by June, she was in the hospital with cancer, although the treatment she describes below would have been standard at the time for something like lymphoma as well for abdominal cancer.[67]



Sept. 27, 1964

Dear Ursuline nuns and others of the college community,

Words cannot adequately express my heartful gratitude to you for your universal concern, your many gracious prayers, letters and cards of inspiration and encouragement, your generous gifts of flowers, food, literature, personal items and other reminders of your love and kindness; also, the visits from, and transport by faculty and office staff when I had to go to the doctors or to the hospital.

All these constant revelations of the greatness of your hearts helped me through these past 3 months when I was so unaccustomedly helpless physically. It is with sincere regret that I cannot write each one of you a personal note of thanks but strength is something I sadly lack.

It was as if God meant this illness to be a new lesson in my ever continuing education. If I had not been so ill I would never have discovered the deep well of love, compassion and generosity that is so much a part of every one of you.

I thank every one of you from the depth of a grateful humble heart.

Yours most gratefully,

Mary Rogick

Mary Rogick

Figure 16. Last signatures. Letter of thanks to the nuns at CNR. Signature from letter to T.J.M. Schopf written on October 7, 1964, shortly before her death.

> This summer I had 3 blood transfusions, anemia, an exploratory abdominal operation, 40 debilitating cobalt radiation treatments with 3 more blood transfusions interspersed – and still the anemia. The treatments left me nearly, helpless, very weak and sick. Most of my summer has been spent in bed—and even now…. [68]

Her illness was diagnosed as a malignant sarcoma, which by the time she visited her doctor had spread to lymph nodes along the aorta, liver, stomach, etc. After surgery and radiation treatment she was advised not to teach. The College President, Mother Mary Robert Falls, gave her a paid leave of absence. From her letters it appears that Mary Rogick was not aware her illness was terminal until a few weeks before her death.[69]

Then, as now, there are no explanations as to why she succumbed to terminal illness at that point. She had been told by friends for years that she worked too hard. Osburn told her not to work too hard – 1930s or 40s.

Libbie Hyman told Mary's former student Rosemary Kenedy that "She (meaning Mary Rogick) works too hard."[70]

It is clear from her letters that Mary was almost constantly sleep deprived, often telling correspondents that she had been able to sleep only a few hours because of her workload, but this may have been partly her own work/sleep style. In a 1955 letter to the Marcuses, after urging them to stay healthy and not overwork, she confessed:

> Fortunately my health is excellent, but this summer I made a surprising discovery – how wonderful one can really feel after a good long night's sleep. Never before this summer had I had the opportunity for very many nights of 8 or 9 hours sleep. Always in the past if I got 5 or 6 hours sleep I thought I was very well off. Now that I have discovered how wonderful it is to sleep 8 or 9 hours—I shall have to reform my old way of living. That will be difficult, since I seem to work best from midnight onward.[71]

She said something similar to R. S. Bassler in a 1956 letter, "Since early childhood I've had an insatiable desire for reading. My mother used to let me stay up till the wee small hours even when I was in grade school so long as I wanted to read. That habit of late study or night work has been with me all these years and it is a hard one to break."[72]

Maybe the fact that her only workspace at the College was in a room where chemicals were stored, and her long career teaching histology, had an effect on health – but we'll never know. What is clear is that she died in the prime of her research career, and her loss affected all who know her, whether personally or by correspondence.

8. Scientific Legacy

Figure 17 shows some examples of her scientific and artistic legacy. Despite her heavy teaching load, Mary was an extremely productive scientist, publishing 64 papers on freshwater and marine bryozoans and on biology teaching methods. In his 1967 study of the literature of the phylum Ectoprocta between 1555 and 1963, Tom Schopf defined the major contributors to the bryozoan literature during that time period as the 2% of authors who published 10 or more papers. This group was responsible for 36% of the literature published. Mary Rogick ranked 8th overall with respect to the number of papers produced, an amazing feat of focus and dedication.[73]

When you remember that most of her work was done before the invention of the Xerox machine so that the extensive series of references necessary for taxonomy had to be copied by hand or expensively Photostatted, her accomplishments seem even more remarkable. Many of the references she needed were not in the CNR library. To find them she had to take the train into New York City and spend long hours in the American Museum of Natural History Library. She was overjoyed when the NSF grants she received for her

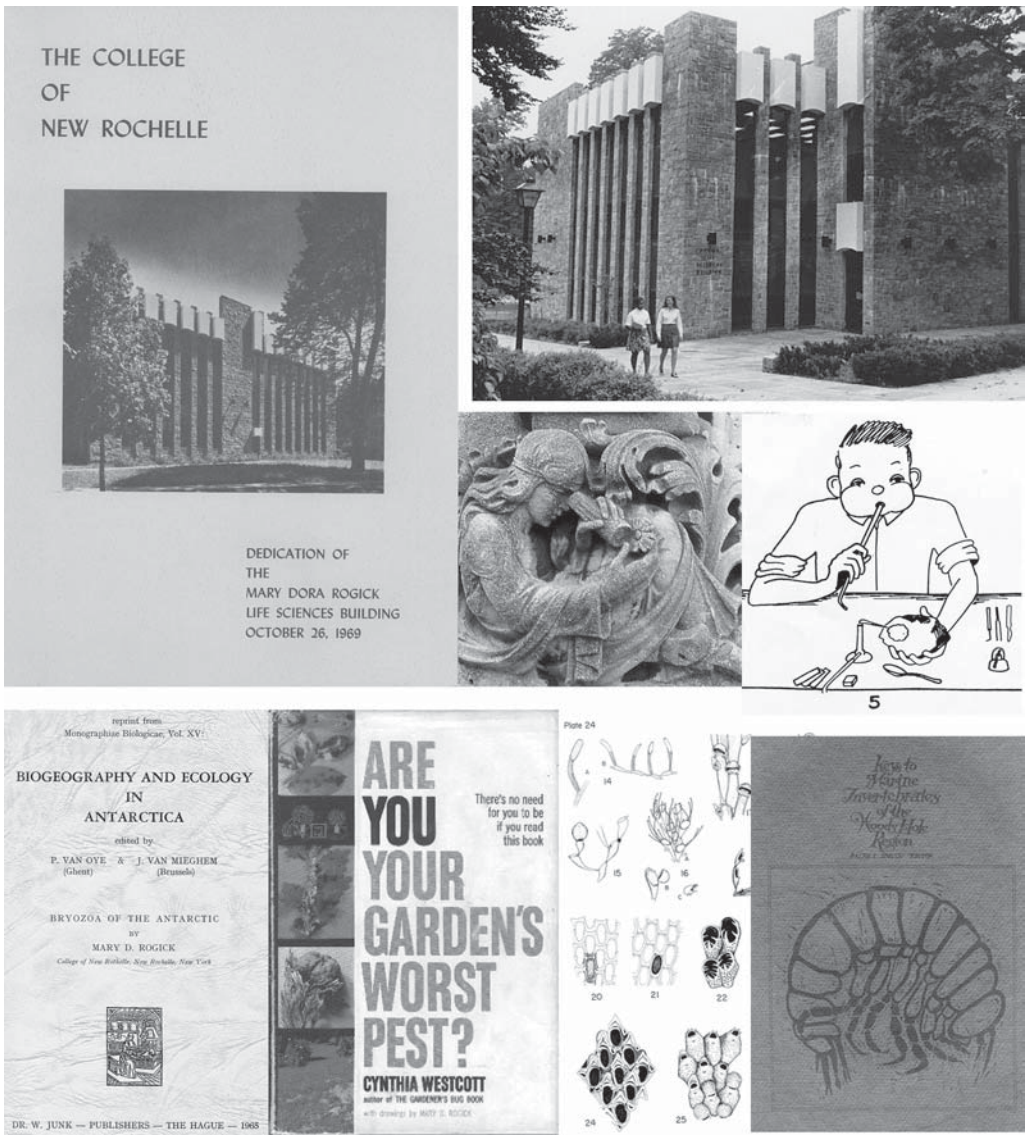


Figure 17. Some examples of Mary Dora Rogick's bryozoan legacy. Cover of the Dedication program for Rogick Hall, 1972. Rogick Hall, College of New Rochelle. Cover page of her article on Bryozoa of the Antarctic. Cover of gardening book by Cynthia Westcott, illustrated by Mary Rogick. Part of Plate 24 and cover of the 1964 Woods Hole Key *for which Mary wrote the bryozoan chapter.*

Antarctic work during the 1950s finally let her purchase some of the necessary monographs and have them bound and to have Photostats of the entire bryozoan section of the *Zoological Record* made for her own collection.[74]

In spite of her personal shyness, when it came to her research she was not at all shy to

state her opinions, although with her usual good humor. Regarding the use of keys she wrote:

> In bryozoan work I usually ignore the keys found in various works because the keys are only on limited collections and not applicable to all species in a particular genus or to all genera in a particular family. Bryozoan identification is far from scientific yet. One has to be a mind-reader, crystal-gazer, modern-or-ancient- "art"-interpreter, divining rod user, coin flipper or gifted with the imagination of an H.G. Wells or H.C. Andersen in order to identify some of the bryozoans that crop up.[75]

Antarctic Work. Her papers on the taxonomy of Antarctic bryozoans were her most far-reaching legacy. From the material she received from the Smithsonian that had come from collections made by the U.S. Navy's Antarctic Expedition, she produced 13 papers on taxonomy of Antarctic Bryozoa, the last published in 1965, after her death. This work included 29 new species, some of the "strangers" as she called them, were found by later workers to deserve new genera, as well.

In his 1995 book on Antarctic cheilostomes Peter Hayward summed up her contribution as follows, "…her clear, detailed descriptions and beautiful, accurate drawings made her work of great practical value to other workers".[76]

The only thing Mary did for which those who followed cannot be grateful, was to promote and use "calcining" as a means of cleaning bryozoans to produce skeletons suitable for illustration. Unfortunately the beautiful skeletons produced by this technique were not permanent, and her calcined types at the Smithsonian's Natural Museum of Natural History have turned to unrecognizable ashes. Any aspiring bryozoan taxonomists who are not aware of the drawbacks of this method should be advised against the technique.

Mary's premature death meant that she never received the honors that come to senior scientists, no medal was ever awarded to her, no Festschrift was held in her honor, and sadly, she did not get to enjoy the retirement travel she had dreamed of. CNR did build a new science building in 1972, and it is called Rogick Hall. She was also honored by the College at its 100th anniversary celebration in 2004, and a virtual exhibit about her was created by the CNR Library.

The lack of honors does not diminish the contribution she made to invertebrate zoology, bryozoan taxonomy and biology teaching. Her life serves as a model of productivity and collaboration for all her scientific descendents.

9. Acknowledgements

Mary's will left her scientific library to the Woods Hole Marine Biological Laboratory. Dr Melbourne Carriker, Director of the Systematics and Ecology Program there, asked his postdoctoral fellow, Dr Thomas J. M. Schopf, to sort through the material received from the College of New Rochelle. That is why when I was a graduate student at the University

of Chicago a few years later some of the material on which this work is based was in still in Tom's laboratory. Mary's library eventually became part of the MBL library; her notebooks and other material were deposited at the Smithsonian Institution. I received the envelopes of her letters from Tim Wood when I was at the American Museum, with the idea that their archives might be interested, but since I am no longer connected with AMNH, the letters will be deposited with her other papers once this work is published. My thanks to Tim for saving this valuable historical material. My thanks go also to Sr. Martha Counihan, Archivist at the College of New Rochelle Library, for allowing the use of photographs and correspondence related to Mary Rogick's career at the College in this paper and for her thoughtful comments on Mary's career. Finally, thanks to the staff at the Pottawattamie County, Iowa Genealogical Society for their help with information on Mary's youth in Council Bluffs.

Notes

1 United States of America, Bureau of the Census. 1920.
2 M.D. Rogick to L. Hyman, September 21, 1951.
3 M.D. Rogick to Mrs Fiske, December 26, 1954.
4 Schopf, T.J.M. 1965. Mary Dora Rogick (obit.) *Ohio Journal of Science* **65** (4), 238-239.
5 Pottawattomie County Genealogical Society corresp. to J. Winston March 26, 2013.
6 *Crimson and Blue*, Abraham Lincoln High School, Council Bluffs, Iowa. 1925 Yearbook. Vol. 27, p. 94.
7 Op. cit., p. 49.
8 Rogick, M.D. 1931. Studies on the comparative histology of the digestive tube of certain teleost fishes II. A minnow (*Campostoma anomalum*). *Journal of Morphology* **52**, 1-25.
9 Rogick, M.D. 1934. Studies on the freshwater Bryozoa of Lake Erie. Ph.D. dissertation. Columbus, Ohio, Ohio State University.
10 Rossiter, M.W. 1982. *Women scientists in America: Struggles and strategies to 1940*. Baltimore: John Hopkins University Press, xviii + 448 pp.
11 Op. cit. p. 129.
12 M.D. Rogick to L. Hyman, August 7, 195
13 College of New Rochelle *Tatler*, June 2, 1960, p. 3.
14 M.D. Rogick to R.G. Kenedy, November 5, 1955.
15 M.D. Rogick to G.M. Moore, March 26, 1951.
16 M.D. Rogick to S. Mentz, October 30, 1958.
17 M.D. Rogick to G.G. Abrikossov, February 24, 1958.
18 M.D. Rogick to H. Kaan, February 18, 1957.
19 M.D. Rogick to R.G. Kenedy, February 23, 1957.
20 M.D. Rogick to G.M. Moore, October 20, 1961.
21 M.D. Rogick to R.S. Bassler, June 12, 1956.
22 M.D. Rogick to E. Androsova, January 25, 1959.
23 M.D. Rogick to S. Mentz, October 30, 1957.
24 M.D. Rogick to E. and E. Marcus, November 3, 1953.
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26 Wood, T. S. 2002. Freshwater bryozoans: a zoogeographical reassessment, pp. 339-344. *In* P.N. Wyse Jackson, C.J. Buttler and M.E. Spencer Jones (eds). *Bryozoan Studies 2001*. Lisse, Swets & Zeitlinger.
27 M.D. Rogick to J. Ackert, August 11, 1943.
28 M.D. Rogickto R. Nauss, June 12, 1948.
29 Rogick, M.D. 1964. Phylum Ectoprocta, pp. 167-187. *In* R. I. Smith (ed.). *Keys to Marine Invertebrates of the Woods Hole Region*. Woods Hole, Massachusetts, Systematics-Ecology Program, Marine Biological Laboratory. 208pp.
30 M.D. Rogick to F. Brown, November 3, 1949.
31 M.D. Rogick to P. Schaefer December 11, 1953).
32 M.D. Rogick to S. Jackowska, July 5, 1952.
33 Brown, F. 1950. *Selected Invertebrate Types*. John Wiley & Sons, Inc. New York.
34 M.D. Rogick to F. Chace, July 27, 1957.
35 M.D. Rogick to G.A. Cole, March 2, 1958.
36 M.D. Rogickto S. Mentz, October 30, 1957.
37 M.D. Rogick to E. and E. Marcus, November 3, 1953.
38 M.D. Rogick to E. e and E. Marcus, April 26, 1946.
39 M.D. Rogick to A. Hastings, May 19, 1951.
40 M.D. Rogick to C. Goodchild, April 10, 1952.
41 Wescott, C. 1961. *Are You Your Garden's Worst Pest?* Garden City, New York, Doubleday. 305 pp.
42 Walter Beach Humphrey was a well-known local artist and magazine illustrator.
43 M.D. Rogick to J.R. Gray, March 12, 1949.
44 M.D. Rogick to R.G. Kenedy May 4, 1956.
45 M.D. Rogick to S. Mentz, October 30, 1957.
46 M.D. Rogick to L. Hyman, June 5, 1948.
47 M.D. Rogick to R.G. Kenedy, July 23, 1955.
48 M.D. Rogick to Mrs Fiske, December 26, 1954.
49 G.W. Comita to M.D. Rogick, October 6, 1956.
50 M.D. Rogick to R.W. Dexter, March 5, 1958.
51 Letters exchanged between D. Brown and M.D. Rogick in 1959.
52 R.C. Osburn to M.D. Rogick, October 11, 1937.
53 R.C. Osburn to M.D. Rogick, October 2, 1951.
54 E. Marcus to M.D. Rogick June 13, 1937.
55 E. and E .Marcus to M.D. Rogick, December 5, 1938.
56 M.D. Rogick to E. and E. Marcus, September 4, 1946.
57 M.D. Rogick to E. and E. Marcus, September 4, 1946.
58 M.D. Rogick to A. Hastings, February 22, 1942.
59 A. Hastings to M.D. Rogick, September 14, 1943.
60 A. Hastings to M.D. Rogick, February 2, 1951.
61 M.D. Rogick to G.G. Abrikosov, February 24, 1958.
62 M.D. Rogick to G.G. Abrikosov, May 25, 1958.
63 M.D. Rogick. to E. Androsova, January 25, 1959.
64 M.D. Rogick to J. Bushnell, January 29, 1959.
65 M.D. Rogick to J.S. Ryland, October 25, 1958.
66 M.D. Rogick to T.J.M. Schopf, October 7, 1964.

67 Personal communication from retired oncologist Thomas Berry, M.D. to J.E. Winston, May, 2013.
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70 R.G. Kenedy to M.D. Rogick, March 12, 1956.
71 M.D. Rogick to E. and E. Marcus, November 3, 1953.
72 M.D. Rogick to R.S. Bassler, October 14, 1956.
73 Schopf, T.J.M. 1967. The literature of the phylum Ectoprocta: 1555-1963. *Systematic Biology*, **16** (4), 318-327.
74 M.D. Rogick to R.S. Bassler, June 12, 1956.
75 M.D. Rogick to G.C. Stephen, June 29, 1960.
76 Hayward, P.J. 1995. *Antarctic Cheilostomatous Bryozoa*. Oxford, Oxford University Press, 335 pp, p. 4.

Appendix 1. Publications of Mary D. Rogick

MS Thesis

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Rogick, M.D. 1936. Studies on fresh-water Bryozoa IV. On the variation of statoblasts in *Lophopodella carteri*. *Trans. Am. Micros. Soc.* **55**, 327-333.
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Appendix 2. Taxa named by Mary Dora Rogick

Antarcticaetos bubeccata (Rogick, 1955) Antarctica
Cellaria coronata (Rogick, 1956) Antarctica
Cellaria monilorata (Rogick, 1956) Antarctica
Cellarinella laytoni Rogick, 1956 Antarctica
Cellarinella margueritae Rogick, 1956 Antarctica
Cellarinella njegovanae Rogick, 1956 Antarctica
Cellarinella nutti Rogick, 1956 Antarctica
Cellarinella rossi Rogick, 1956 Antarctica
Dakariella dabrowni (Rogick, 1963) Antarctica
Eminooecia carsonae (Rogick, 1957) Antarctica
Exochella hymanae (Rogick, 1956) Antarctica
Melicerita latilaminata Rogick, 1956 Antarctica
Rhamphosmittina bassleri (Rogick, 1956) Antarctica
Romancheina barica (Rogick, 1955) Antarctica
Smittina abditavicularis Rogick, 1956 Antarctica
Smittina alticollarita Rogick, 1956 Antarctica
Smittina exertaviculata Rogick, 1956 Antarctica
Smittina obicullata Rogick, 1956 Antarctica
Smittinella rubrilingulata Rogick, 1956 Antarctica
Smittoidea ornatopectoralis Rogick, 1956 Antarctica
Toretocheilum absidatum Rogick, 1956 Antarctica

Appendix 3. Bryozoan taxa named in honor of Mary Dora Rogick

Genus

Rogicka Uttley & Bullivant, 1972. Type species: *Schizoporella biserialis* Hincks, 1885. This genus includes *Rogicka biserialis* (Hincks, 1885) S. Pacific, S. Atlantic; *Rogicka joannae* Vieira, et al. 2010, SW Atlantic; *Rogicka oceanica* Gordon, 1984, Kermadec Region, and *Rogicka scopae* (Canu & Bassler, 1928), SW Atlantic.

Species

Cellarinella rogickae Moyano, 1965 Antarctica
Cigclisula rogickae (Soule, 1961) Gulf of California, E. Pacific
Drepanophora rogickae (Brown, 1958) Tertiary, Australia
Exochella rogickae Hayward 1991 Antarctica
Microporella rogickae Winston, Hayward & Craig, 2000 NW Atlantic
Smittina rogickae Hayward & Taylor, 1984
Thrypticocirrus rogickae Hayward & Thorpe, 1988