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Algae in Special Collections: Making Room for STEM

Pepperdine University Libraries' Special Collections and University Archives (SCUA) accessioned an algae press collection belonging to a distinguished professor of biology. The first of its kind in these archives, the natural history collection of aquatic plant material provides for inquiry-based and participatory student instruction and research. The algae press collection also provides real-time professional development for special collections librarians more accustomed to stewarding rare books and manuscripts. Providing an overview of developing the collection to full and effective use, this case study addresses challenges and opportunities encountered, including building departmental consensus, researching best practices for preservation and conservation, and developing new use and handling policies. Increasing accessibility of the specimens to the wider scientific community through a national consortium of herbaria will add value to the collection beyond the university.

Introduction

The Pepperdine University special collections department is less than a century old. The department supports instruction through intentional acquisitions and generous donations of valuable rare books and unique archival collections. However, the materials are largely paper-based and focused on literature, religion, art, and history. To meet growing demand to demonstrate their impact on student learning, university archivists are including a broader array of materials, recognizing the archives as not just literary, but scientific.

This case study examines one such effort at Pepperdine University Libraries, and describes the particular circumstance that presented the opportunity to accession a natural history collection. The literature review presents the research potential for natural history collections, reflects the call for special collections departments to impact student learning, and compares the policy differences between herbaria and traditional archives. Further, the case study describes challenges and opportunities the department encountered as it endeavored to add a natural history collection, revealing strategies for adding value to such collections as they are incrementally developed to their highest and best use.

The Setting

The author received an inquiry from Stephen D. Davis, Distinguished Professor of Biology at the university. He was clearing out his lab as he transitioned to retirement from a highly successful, fifty-year career as a botanist. Would the archives be interested in preserving his herbarium collection of pressed and mounted macro-marine algae, commonly referred to as seaweed? Over the years he had accumulated mounted specimens, but most were collected from the rocky intertidal zones of Pacific Grove and Monterey Peninsula of northern California. The specimens were pressed, dried, and mounted on herbarium paper, in preparation for teaching and scientific research and to preserve their historical record.

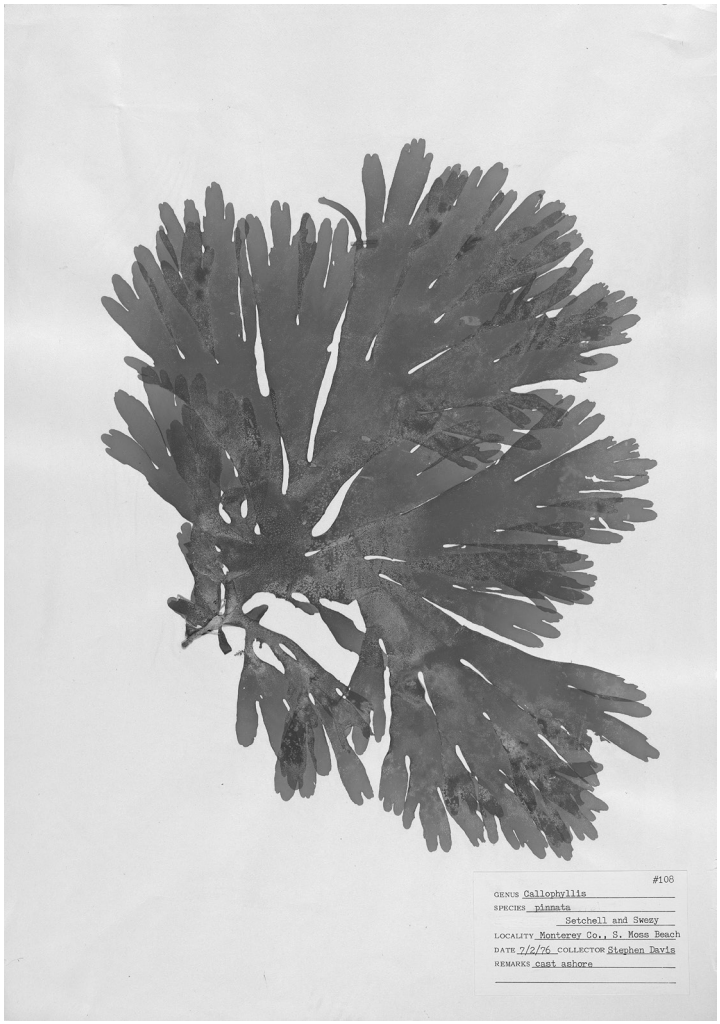

Fig. 1. *Callophyllis pinnata,* 07/02/1976. From the Stephen Davis Algae Press Collection, Pepperdine University Libraries Special Collections and Archives. All rights reserved.

Fig. 2. *Botryocladia pseudodichotoma,* 06/18/1976. From the Stephen Davis Algae Press Collection, Pepperdine University Libraries Special Collections and Archives. All rights reserved.

The professor gathered most of the specimens from the coastal waters of California in 1976. While the samples were meticulously mounted and labeled, they also spent the subsequent fifty years in a filing cabinet, in the suboptimal, inconsistent environment of his teaching lab. Dr. Davis collected the specimens under the supervision of world-renowned botanist, Dr. Isabella Abbott.[1] This collection of one hundred ninety-eight specimens is a rich and irreplaceable record of the environmental history of California's coastal waters. It also preserves the historical record of algae distributional data, morphology, and species-naming. Moreover, it documents the academic researchers' scientific practices and those of the universities with which they were associated.

In the last twenty years, SCUA at Pepperdine University Libraries grew from one cramped storage room to a recently renovated special collections wing.[2] The special collections instructional program steadily expanded, as well, to include undergraduate classes from a range of disciplines, including STEM—science, technology, engineering, and mathematics. And yet, when the algae press collection inquiry came, SCUA had only one other natural history collection in its archives.[3] The algae press collection offered a perfect opportunity to grow the collections toward greater support for faculty engagement and student

1. Abbott, a widely published seaweed scholar at Stanford University and University of Hawaii, discovered over 200 new species of algae during her career. Jennifer Crites, "Pioneering Professor Is First Lady of Limu," 21 October 2010, www.hawaii.edu/malamalama/2010/10/isabella-abbott/

2. In addition to two sustainable preservation environments, the SCUA wing hosts a reading room, an outfitted processing room, a digital lab, and dedicated instructional and display spaces. These areas feature large glass viewing windows so that the work of special collections is visible, accessible, and inviting to students, faculty, and researchers alike. Marc Vinyard et al., "A Pop-up Service Point and Repurposed Study Spaces: Maintaining Market Share During a Renovation," *Journal of Library Administration,* 58, no. 5 (2018): 449–467, https://doi.org/10.1080/01930826.2018.1468193

3. SCUA's previously existing natural history collection is an inorganic one—non-living, non-carbon-based material—consisting of small stones that document the geological and archaeological history of the coastal ranges of the Santa Monica mountains. Pepperdine University Archaeological Survey and Excavation Collection, Collection no. 0114, Malibu Historical Collection, Special Collections and University Archives, University Libraries, Pepperdine University.

learning in STEM fields. It also provided opportunities for professional development and showcasing SCUA's newest platform for digital collections and exhibits.[4]

Literature Review

Overall, the literature calls special collections librarians to explore adding STEM materials—and reveals the research potential of natural history collections—but cautions that preservation policy shifts may be necessary. To remain relevant and central to the educational enterprise, academic libraries must demonstrate their impact on student learning in all disciplines, and they must explore ways to collaborate "across [academic] borders," as they teach students how to critically examine archival materials.[5] Mulrennan points out the diverse range of stakeholders—from "budget holders and department heads," to the "undergraduate student [and] the senior academic,"—that must be engaged to make the case for, and realize, the full value of archives.[6] This case must "[reach] beyond mere novelty. . . using every channel available to spread consistent key messages about the value of the department and its services. Here, [imagination] is key."[7] Likewise, Flynn identifies archives "as a trigger-point for students to shift from passive to active engagement with learning," and calls "for bringing multiple stakeholders, from a range of disciplines. . . [to reveal] new avenues for engagement."[8] Quoting Button and Buttars, Mulrennan encourages archives departments to be "imaginative" and "flexible" in their approach.[9] Mulrennan calls for "making a conscious effort to reach beyond 'familiar' disciplines in Arts, Humanities and Social Science."[10] The algae press collection, though the first of its kind at Pepperdine, directly responds to this, by preserving organic natural history materials. These materials invite the academic community and special collections librarians to "to 'think deeper' about the archival record," and the power of STEM primary sources.[11] The algae specimen collection invites special collections librarians to develop effective instruction sessions for STEM students, and supports the possibility of future research, using

4. https://pepperdine.quartexcollections.com/malibu-historical-collection/algae-press. Pepperdine's data asset management runs on AM Quartex, a product of AM, which provides a cloud-based and hosted "digital collections platform for libraries and archives." "Showcase Your Digital Library," Adam Matthew Digital Ltd., Sage, 2026, https://www.amdigital.co.uk/am-quartex

5. Theresa Quill et al., "Working Across Borders: Building Collaborations for Primary Source Instruction," *Journal of Map and Geography Libraries* 15, no. 2–3 (2019): 154, https://doi.org/10.1080/15420353.2020.1719268

6. Kirsten Mulrennan, "Lessons in Making the Unique Ubiquitous: Diversifying the Role of the Special Collections and Archives Department to Enhance Teaching and Learning at the University of Limerick," *Archives and Records* 41, no. 2 (2020): 140, https://doi.org/10.1080/23257962.2020.1713070

7. Mulrennan, "Lessons," 140.

8. Paul Flynn, "Towards a Pedagogy of Archival Engagement," *Archives and Records* 41, no. 2 (2020): 106, https://doi.org/10.1080/23257962.2020.1758048

9. Clare Button and Grant Buttars, "People Power: Models of Engagement for Diverse Special Collections," *SCONUL Focus* 60 (2014): 61. Quoted by Mulrennan, "Lessons."

10. Mulrennan, "Lessons," 128.

11. Mulrennan, "Lessons," 138.

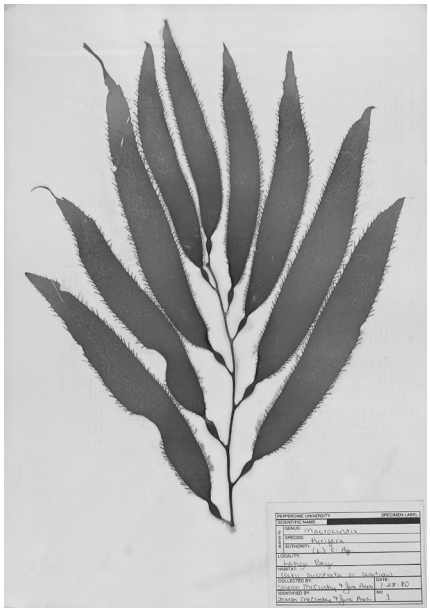

Fig. 3. *Macrocystis pyrifera,* 01/28/1980. From the Stephen Davis Algae Press Collection, Collection no. 0220, Pepperdine University Libraries Special Collections and Archives. All rights reserved.

the STEM-based materials in collaboration with campus programs, such as the university's Summer Undergraduate Research Program in Biology.[12]

Long recognized as contributors to the scientific record, herbaria, such as the algae collection, serve as libraries—of dried, pressed plant samples and their associated data. They provide biological and environmental histories, allow scientists to track changes over time, and document past scientific practice.[13] This material can be tapped not only for research but also for creative use in primary source STEM instruction. Herbaria can effectively engage students in active learning and discovery that addresses personally relevant issues including public health, emerging diseases, global food insecurity, and challenges associated with a changing climate.[14] Algae specimens can support learning through engaging, student-led activities, such as asking open-ended questions. Such methodologies allow students to develop their own interpretations and theories about scientific concepts. As primary source materials with an unfamiliar format, the specimens inspire an appreciation for "herbaria as essential resources for understanding the

12. Pepperdine University hosts an annual program, Summer Undergraduate Research in Biology, in which science faculty work closely with students to complete original biological research. "Summer Undergraduate Research in Biology," Pepperdine University, 2026, https://seaver.pepperdine.edu/surb/

13. Macarena Marin-Rodulfo et al.," Old Meets New: Innovative and Evolving Uses of Herbaria Over Time as Revealed by a Literature Review," *Plants, People, Planet,* 6 (2024): 1261–1271, DOI: 10.1002/ppp3.10541

14. Shawn Krosnick and Kelly Moore, "Rooting Students in Their Botanical History: A Method to Engage Students in Botany and Herbaria," *Plants, People, Planet,* 7, no. 2 (2025): 838–849, https://doi.org/10.1002/ppp3.10595

Fig. 4. *Nemalion lubricum,* 06/28/1976. From the Stephen Davis Algae Press Collection, Collection no. 0220, Pepperdine University Libraries Special Collections and Archives. All rights reserved.

natural world."[15] By weaving contextual information into instruction sessions with the algae specimens, Pepperdine special collections librarians shed light on past scientific practices and societal norms, encouraging students to consider not only the scientific value of the materials, but the voices represented in the scientific record.

Cook et al. point out that "physical resources and digital data associated with natural history [collections] provide a superb but underused platform for innovative, relevant, and significant educational experiences."[16] Inasmuch as algae press specimens serve as a "key indicator of the impact of anthropogenic activity on environmental conditions," they are foundational to understanding our changing planet's history, and are expected to become increasingly important for research on climate change.[17] Building on the success of Pepperdine University's undergraduate research program and highly-regarded natural science division, the algae press collection represents an undergraduate student research project not only waiting to happen—and one that is highly relevant to students' concerns.[18]

15. Krosnick and Moore, 847.
16. Joseph A. Cook et al., "Natural History Collections as Emerging Resources for Innovative Education," *BioScience* 62, no. 2 (2014): 725, doi:10.1093/biosci/biu096
17. Cook et al., "Natural History Collections," 726. See Casey A. Jones and Curtis C. Daehler, "Herbarium Specimens Can Reveal Impacts of Climate Change on Plant Phenology; A Review of Methods and Applications," *PeerJ* 6, (2018): e4576, https://doi.org/10.7717/peerj.4576
18. University students with high awareness of climate change were subject to slightly higher levels of anxiety and feelings of hopelessness. Galip Usta, "Determining the Climate Change Anxiety Levels of University Students," Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 51, (2023): 159–167, https://doi.org/10.52642/susbed.1282642

Fig. 5. *Coilodesme californica,* 06/26/1976. From the Stephen Davis Algae Press Collection, Collection no. 0220, Pepperdine University Libraries Special Collections and Archives. All rights reserved.

Inspired by the retiring professor's algae press collection, a younger colleague in the natural science division plans to lead a student research project that would compare current levels of nutrient pollution to levels reflected in the specimens collected nearly fifty years ago. Isotope analysis of specimen tissue can determine the extent to which the main nutrients in the algae come from anthropogenic sources, providing a mechanism to examine the effect over time of land-based and human-based sources of pollution.[19] In addition to its usefulness in primary source instruction, this algae specimen collection, like all herbaria, is preserved for its usefulness to scientific advancement.

Traditional archives give priority to preserving original items, and their intellectual content, to every extent possible,[20] and aim to maintain materials by "intervening minimally, prioritizing reversibility [in conservation treatments] and ensuring [the long-term] safety of the material."[21] Herbaria, with intellectual content "both on the labels and [in] the specimens themselves," are a special case of archival materials.[22] While scientific research methodology will sometimes necessitate destroying at least a small portion of a specimen to fully access the specimen's intellectual content, institutional herbaria prefer non-destructive use of the specimens whenever possible.[23] In an effort to balance the twin goals of

19. Florybeth La Valle, Professor of Biology, email message to author, April 8, 2025.
20. "Session 1: Introduction to Preservation," Northeast Document Conservation Center, 2015, https://www.nedcc.org/preservation101/session-1/1what-is-preservation
21. M. Lin et al., *Preservation and Conservation of Library and Archival Materials* (Guangzhou: Sun Yat-Sen University Press, 2012), Quoted by Yan Li et al., "Conservation Strategies for Palm-Leaf Manuscripts from Yunnan, China," *Restaurator International Journal for the Preservation of Library and Archival Material,* June 11, 2025, https://doi.org/10.1515/res-2024-0029
22. Marin-Rodulfo et al., "Old Meets New," 1261.
23. See "Destructive Sampling Policy," Harvard University Herbaria and Libraries, The President and Fellows of Harvard University, 2025, https://www.huh.harvard.edu/pages/destructive-sampling-policy. "Herbaria Policies," The University and Jepson Herbaria, University of California, Berkeley, Regents of University of California, 2025, https://ucjeps.berkeley.edu/main/policies.html

preservation and scientific understanding, institutional herbaria establish "destructive sampling" policies, to minimize the damage to the specimen while allowing scientific advancement to continue.[24]

Case Study

At first mention, the idea of accessioning the algae press collection was met with understandable skepticism from SCUA librarians. It would require staff development to successfully steward this natural history collection, use precious shelf space, and divert limited human and budgetary resources. Although there was potential benefit for preserving such a collection, department stakeholders needed to understand the project's rationale, be open to collections diversification, and imagine what purpose an algae press collection could serve. Pepperdine's natural science faculty helped justify the collection's significance and research potential. Dean of Libraries Mark Roosa was persuaded and supported the effort, providing the budget for supplies. Roosa encouraged the author to look for resources that would provide information to properly house and preserve aquatic plant specimens.

In researching best practices, the author consulted the Northeast Document Conservation Center (NEDCC) for recommendations for the paper-mounted algae specimens. NEDCC confirmed that the environmental set points in SCUA's preservation environment—forty percent relative humidity and sixty degrees Fahrenheit—were appropriate. NEDCC recommended that each specimen be matted—some with a deeper "sink" mat if the specimen was significantly elevated—and stored in archival boxes.[25] The author consulted resources available from another university and the National Park Service before ordering supplies.[26] Special collections librarians deemed custom-matting for nearly two hundred individual specimens exceeded available budget; instead, each specimen was covered with acid-free paper and stacked in drop-front archival boxes. Over the next few months, SCUA librarians noticed the stacked mounts drooped, putting pressure on the specimens. To avoid breakage, special collections librarians moved the specimens to shallow, one-inch, four-flap enclosures lined with archival-quality board to add rigidity. These enclosures, each holding only four specimens, were stacked in archival boxes. This increased the collection's shelf space, but prevents abrasion and drooping, and better cares for the specimens, long-term.

24. University of California, Berkeley, "Herbaria Policies."
25. Michael K. Lee, Director of Paper and Photograph Preservation, NEDCC, email message to author, April 11, 2024.
26. A comprehensive summary of supplies and resources is freely available from the University of Florida Herbarium. See "Ordering Supplies and Equipment," Florida Museum University of Florida Herbarium, https://www.floridamuseum.ufl.edu/herbarium/methods/supplies/. "Preparing and Storing Herbarium Specimens," National Park Service, November 2009, https://www.nps.gov/subjects/museums/upload/11-12_508.pdf

Fig. 6. *Gigartina exasperata,* 06/27/1976. From the Stephen Davis Algae Press Collection, Collection no. 0220, Pepperdine University Libraries Special Collections and Archives. All rights reserved.

Due to the presence of colloidal "glues" in algal cell walls and intercellular spaces, most algae specimens naturally affix to the mounting paper as they dry.[27] Indeed, most of the specimens in the collection remain affixed to the mounting paper. However, as SCUA librarians became more familiar with the specimens through their occasional use in instruction, they began to observe that several of the specimens had pulled away from their paper mounts, making some specimens too fragile to bring out for display. SCUA works to conserve materials that are unique, irreplaceable, and used for instruction, such as these specimens. Further research was required to discover the best way to conserve them. Again SCUA librarians turned to more established herbaria, as well as to the Smithsonian Museum of Natural History to learn best practices, taking care to recognize that, while the specimens will be available for scientific research, the mounted specimens should also be preserved as archival objects.[28] SCUA librarians are hesitant to make any repairs that would not be reversible in the future, and have agreed it is best to conserve with a light hand, re-affixing specimens that were most in need of repair and used in instruction. Learning to conserve mounted algae specimens was an area for SCUA librarians' further development as preservationists; a new frontier for this department (see Figure 7).

Academic institutions with herbaria typically quarantine new specimens upon arrival at the herbarium, until they can be treated by freezing for several days.[29] Because the specimens had not been quarantined, and SCUA did not yet have a freezer for such purposes, specimens needed to be carefully examined for evidence of pests before

27. "Algae Preservation Techniques," Smithsonian National Museum of Natural History, https://www.naturalhistory.si.edu/research/botany/research/algae/algae-preservation-techniques
28. "Algae Preservation Techniques," https://www.naturalhistory.si.edu/research/botany/research/algae/algae-preservation-techniques. "Herbaria and Herbarium Specimens," University of Florida Herbarium (FLAS), May 5, 2023, https://www.floridamuseum.ufl.edu/herbarium/methods/herbaria/
29. "Herbaria and Herbarium Specimens."

Fig. 7. Special Collections librarians conserved algae press specimens using reversible, water-activated, gummed linen tape. Image by author.

they could be stored with the collections. Working in the SCUA processing room, the author and a student employee used a lighted magnifying glass for this purpose and continued to check the specimens intermittently for the first several weeks after accession to ensure that there was no detectable insect activity. (Figure 7.)

The author developed a processing plan in which student employees completed data entry and folder labeling. Because there was no discernable original order, the author looked at the arrangement schemes of other herbaria to discover a range of options for dried aquatic plant material.[30] Again, natural science faculty were helpful partners for the question of how researchers might use the collection. Together, it was decided it would be most helpful to arrange this specimen set alphabetically by the geographic location at which the algae specimens were collected. The planned future project (above) would likely require current samples collected in the same California locations: Malibu—in Los Angeles County—and various locations in Monterey and Sonoma counties.

Before a finding aid could be completed, the collection needed a use policy. Biological specimens, including algae in institutional scientific collections, have historically been subject to "destructive sampling," a "procedure performed on [a] specimen that results in the permanent removal of material" in the course of analysis.[31] Therefore, the author developed a destructive sampling policy, based on one at a neighboring university, and in consultation with the natural science faculty.[32] When the policy was complete, SCUA librarians posted the finding aid for the

30. University of Florida Herbarium suggests possible arrangement schemes including: 1) alphabetical by circumscription system—the system used in the process of defining the precise boundaries of taxonomic groups; 2) by phylogenetics—the evolutionary relationships of the specimens; 3) by genus and species; and 4) by the geographic location at which the specimen was collected. Each arrangement scheme has pros and cons. "Upkeep and Organization of the Collection," University of Florida Herbarium (FLAS), February 2, 2022, https://www.floridamuseum.ufl.edu/herbarium/methods/upkeep/

31. "Destructive Sampling Policy," Harvard University Museum of Comparative Zoology. https://www.mcz.harvard.edu/destructive-sampling

32. Pepperdine University Libraries, "Guidelines for Destructive Sampling of Specimens," Internal policy, Special Collections and University Archives. Pepperdine's Use Policy is included in the Finding Aid at https://oac4.cdlib.org/findaid/ark:/13030/c8tq68hh/

collection to the regional online archives.[33] Special collections librarians were afforded the opportunity to research best practices for the preservation and conservation of aquatic plant materials, for addressing issues of insect threat, and for re-housing. SCUA librarians, therefore, expanded their horizons of understanding for herbarium arrangement, description, and preservation, and adapted the knowledge to the local collection.

In addition to the planned student research project above, SCUA is incorporating the algae specimens into special collections instruction sessions in STEM classes. The effort began with one enthusiastic professor of environmental biology who brought all sections of her labs, for three consecutive semesters, to engage with the algae specimens, about 150 students as of February 2026. The special collections instructional librarian has used the algae press collection as a draw for professors who teach botany and marine biology, growing the number of STEM classes who visit SCUA. Two additional professors will bring their classes to engage with the algae press specimens in the 2026 spring semester. "Turning undergraduates loose in the archives," as Taylor put it in 1972, invites them to wonder and inquire of primary scientific sources, making the case for the archives, and for the centrality of special collections in STEM student learning and research.[34] Students are given the opportunity to consider how these specimens preserve the history of our region's aquatic plant life and how they might be used to study scientific phenomena like climate change. As an exercise in inquiry-based learning, students are asked to consider how these specimens reflect the natural world and human experience. They are asked to wonder what evidence these specimens hold and what questions the specimens could answer. Students are invited to compare the professional algae press specimens with those collected by citizen scientists into herbarium scrapbooks, prompting them to consider the question, Who makes scientific knowledge?[35]

Student responses to these questions give insight into the impact of the algae press collection.[36] First, students appreciate the tangible experience of connection to the past, noting that the preserved specimens pre-date their own lives, show actual proof of plant life years ago, and—significant to students in the digital age—can be

33. Stephen Davis Algae Press Collection, Collection no. 0220, Special Collections and University Archives, University Libraries, Pepperdine University. Online Archive of California, UC Libraries. https://oac4.cdlib.org/findaid/ark:/13030/c8tq68hh/

34. Hugh A. Taylor, "Clio in the Raw: Archival Materials and the Teaching of History," *The American Archivist* 35, no. 3/4 (1972): 317, http://www.jstor.org/stable/40291435

35. The special collections instructional librarian uses a guided inquiry handout to prompt student responses to these ideas as they engage with the algae specimens. Alicia Petersen, "BIOL 107 Visit to Special Collections, Payson Library" (unpublished worksheet, October 2025), internal document, Payson Library, Pepperdine University.

36. Anonymized student feedback was collected from students in Dr. Krista Lucas' Environmental Science Lab, fall 2025. Student responses were grouped and summarized by the author according to themes discussed.

touched. Second, because of the information contained in the specimens themselves, students are hopeful that they can be used to demonstrate how plants are affected by human action, and how the natural world changes over time. Students are struck by the way herbaria demonstrate humanity's curiosity and its need to observe, collect, document, and study nature. Students find the human effort expended to harvest and preserve the plants fascinating, noting that humans decided that it is worthwhile to protect these specimens for their usefulness to answer scientific questions. With continued engagement with natural science faculty and students, opportunities abound for this collection to continue to impact student learning and inspire discovery.

Looking ahead, the algae press collection could take on more value as it becomes more accessible; there is more work to be done. Herbarium specimen data and images are increasingly made available to researchers through online databases.[37] To that end, the author and the SCUA digital curations librarian are completing steps to join a consortium—Algae Herbarium Portal—a data management and publishing platform which serves as a resource to advance algal research and educate the public.[38] As of this writing, digital imaging of the algae collection is complete. When metadata construction is completed, the metadata and associated images will be uploaded to the portal so that the specimens can take their place in the "truly global digital natural history collection."[39] Although departments with limited resources may not be able to realize the full potential of natural history collections immediately, adopting an incremental process to bring them along can be an effective means to achieve worthy ends.

Conclusion

The idea of preserving the algae press collection initially seemed far-fetched for Pepperdine's special collections department. The author was challenged to make the case internally for the material's value, balancing other repository priorities and the available departmental resources. In actuality, the collection provided opportunities for significant professional development for special collections librarians, impactful STEM instructional sessions, and made possible future student research projects. This outcome requires that archivists remain flexible and open to diversification of the archives, learn and grow in their ability to properly steward such a collection, and take an incremental approach to developing the collection to its full potential, as time and resources allow. Such an investment can pay big dividends for students, researchers, and special collections departments alike. Increasingly under pressure

37. Brenskelle et al., "Maximizing Human Effort for Analyzing Scientific Images: A Case Study Using Digitized Herbarium Sheets," *Applications in Plant Sciences* 8, no. 6 (2020): e11370, DOI: 10.1002/aps3.11370

38. "Algae Herbarium Portal: A Consortium of Algae Collections," Integrated Digitized Biocollections (iDigBio). https://macroalgae.org/portal/index.php

39. Brandon P. Hedrick et al., "Digitization and the Future," *BioScience* 70, no. 3 (2020): 243, doi:10.1093/biosci/biz163.243

to do the work and tell the story, special collections departments within the higher education setting will need to move responsibly beyond their paper-based comfort zones.

There are still further opportunities that await SCUA to develop this collection to its full potential. Opportunities include telling the story of this algae collection through the library's social media and news posts, and the development of a digital exhibit. The consortium project must be completed. SCUA librarians will explore ways to further incorporate this collection into student learning and research projects at this university and beyond. This collection provides real-time professional development for the special collections department, and firmly establishes the archives as a place of scientific discovery in the university.

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