At Brown, we have begun the process of digiEzing the vascular plant specimens from 15 herbaria across the region.

2. Digitizing the collections
FUNDING FROM THE NATIONAL SCIENCE FOUNDATION\(^1\) HAS MADE IT POSSIBLE TO START DIGITIZING ALMOST 1.3 MILLION NEW ENGLAND VASCULAR PLANT SPECIMENS FROM 15 HERBARIUMS ACROSS THE REGION. AT BROWN, WE HAVE BEGAN THE PROCESS OF DIGITIZING THE SPECIMENS AS PART OF THIS LARGE COLLABORATIVE PROJECT. IN THE NEXT TWO TO THREE YEARS ALL OF OUR NORTH AMERICAN SPECIMENS WILL BE AVAILABLE ONLINE AND SOON AFTER THAT THE REMAINING SPECIMENS WILL BE DIGITIZED.

\(^1\)National Science Foundation Digitization TCN: Mobilizing New England Vascular Plant Specimen Data to Track Environmental Changes, #1208972

3. The digitizing procedure
Primary digitization
Barcode attached, basic collection data captured from label, sheet imaged

Secondary digitization
Data entry from images of labels and specimens
New determinations can be added by specialists
Capture habitat and phenology from image

Distribution of data
We will add Brown’s collections to global databases of biodiversity. Pictured here: the locations of the > 346 million specimens databased in the Global Biodiversity Information Facility (www.gbif.org)

Data backup and archiving in Brown Digital Repository
https://repository.library.brown.edu/studio/discover/654/

4. Who is doing the digitizing?
A TEAM OF BROWN UNDERGRADUATE HERBARIUM ASSISTANTS ARE WORKING ON THE PRIMARY DIGITIZATION. SECONDARY DIGITIZATION WILL PROVIDE OPPORTUNITIES FOR VOLUNTEERS AND CONTINUED COLLABORATION WITH BROWN STUDENTS.

5. How is the data used?
ALL DIGITAL IMAGES AND DATABASE RECORDS ARE UPLOADED TO AN ONLINE PORTAL LARGE DATASETS SUCH AS THIS CAN BE USED TO TRACT THE EFFECTS OF CLIMATE CHANGE ON PLANT PHENOLOGY (THE TIMING OF LEAF OUT, FLOWERING, AND FRUITING) AND OTHER PHYSIOLOGICAL PROCESSES. HERBARIUM SPECIMENS PROVIDE A GOOD SOURCE OF DATA FOR THESE STUDIES AS WELL AS INFORMATION RELATED TO SUCH THINGS AS PLANT DISTRIBUTIONS AND THE SPREAD OF INVASIVE SPECIES. THE FIGURE BELOW SHOWS THAT FLOWERING TIMES OF PLANTS AT THE ARNOLD ARBORETUM, BOSTON, MA WERE EARLIER IN 2002 COMPARED TO 1882. THIS STUDY WAS BASED ON HERBARIUM RECORDS.\(^2\)