

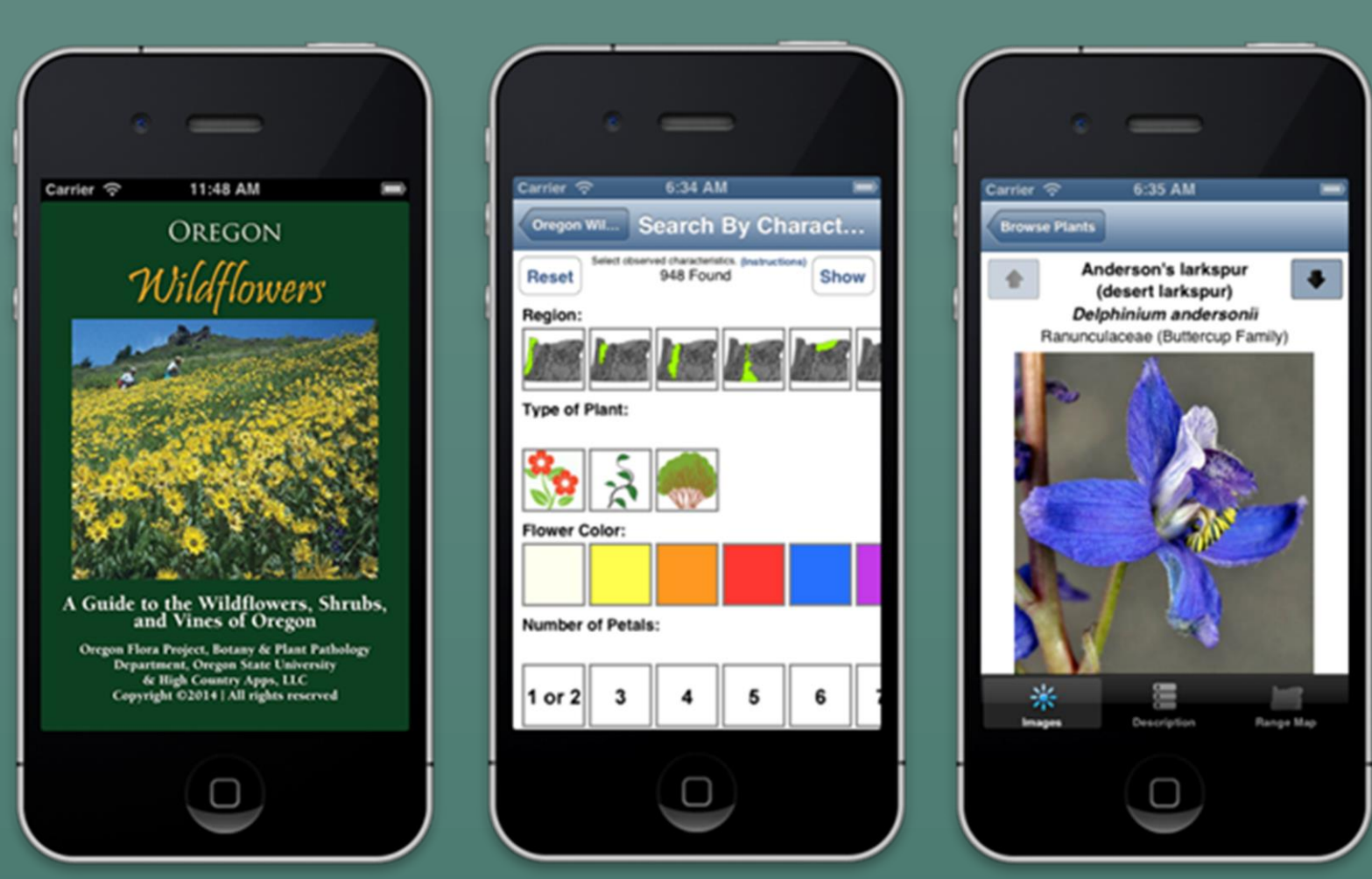


The potential within a modern flora

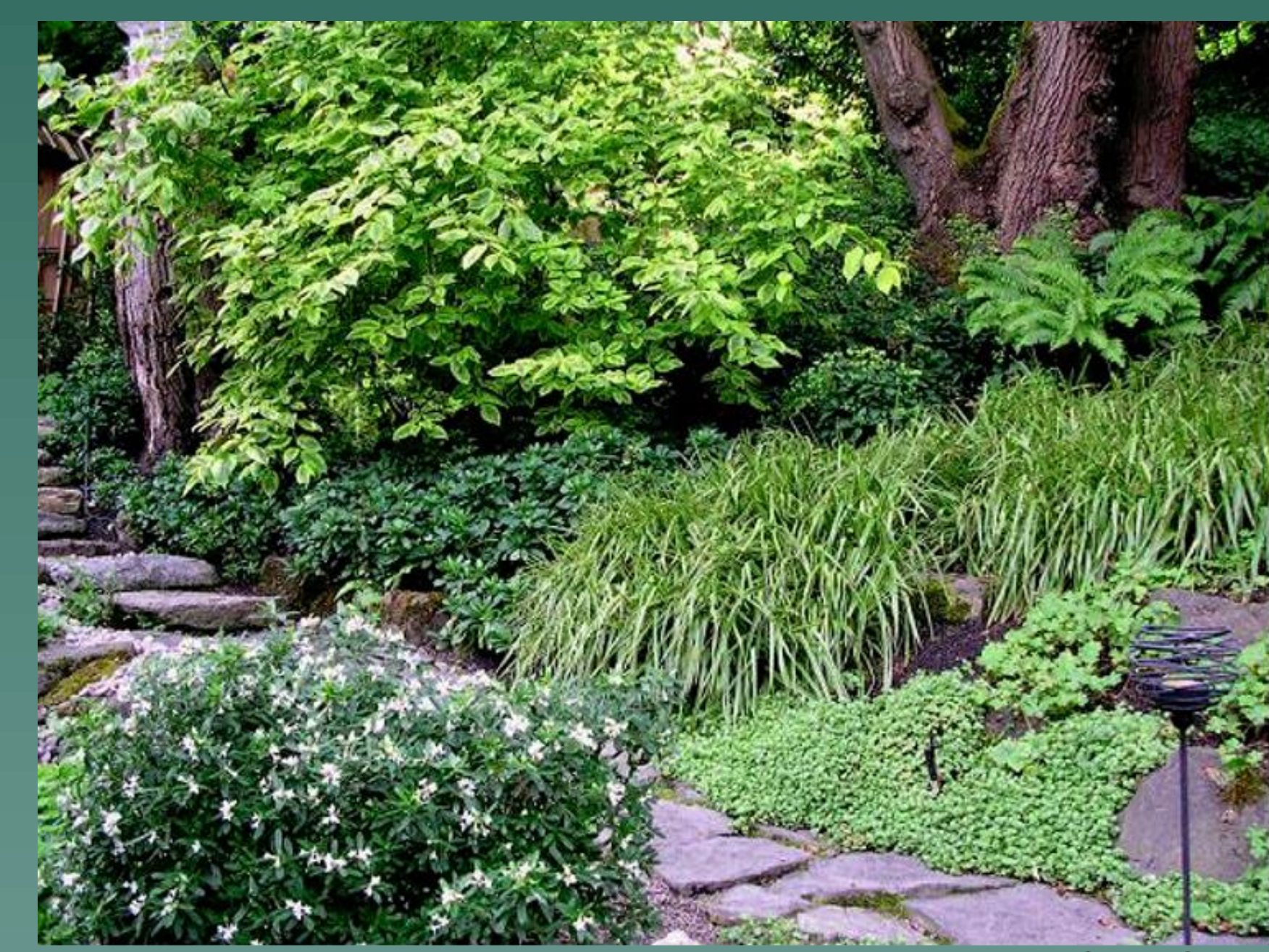
OregonFlora

Thea Jaster, Katie Mitchell, Stephen Meyers, Linda Hardison
 Dept. Botany & Plant Pathology, Oregon State University 97331
 jastert@oregonstate.edu, mitcheka@oregonstate.edu,
 stephen.meyers@oregonstae.edu, hardisol@oregonstate.edu

Specialized tools for recreation and education



The *Oregon Wildflower App* was designed by *High Country Apps* and uses OregonFlora nomenclature, images, occurrence data, and morphology data. It has been a popular tool for plant enthusiasts and botanical newcomers. Accuracy of the underlying dataset allows this recreational tool to become educational as well.

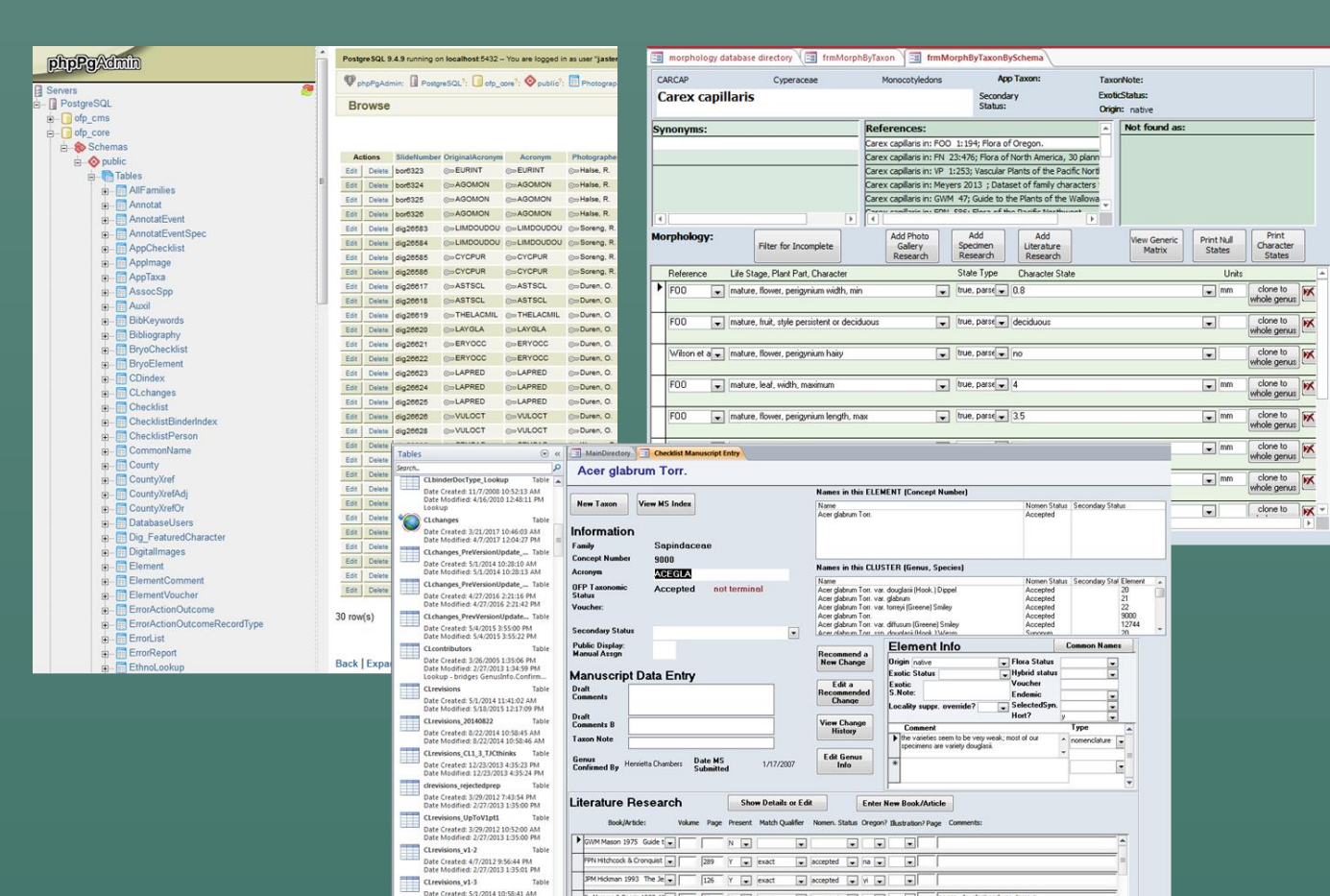


Carol Lindsay

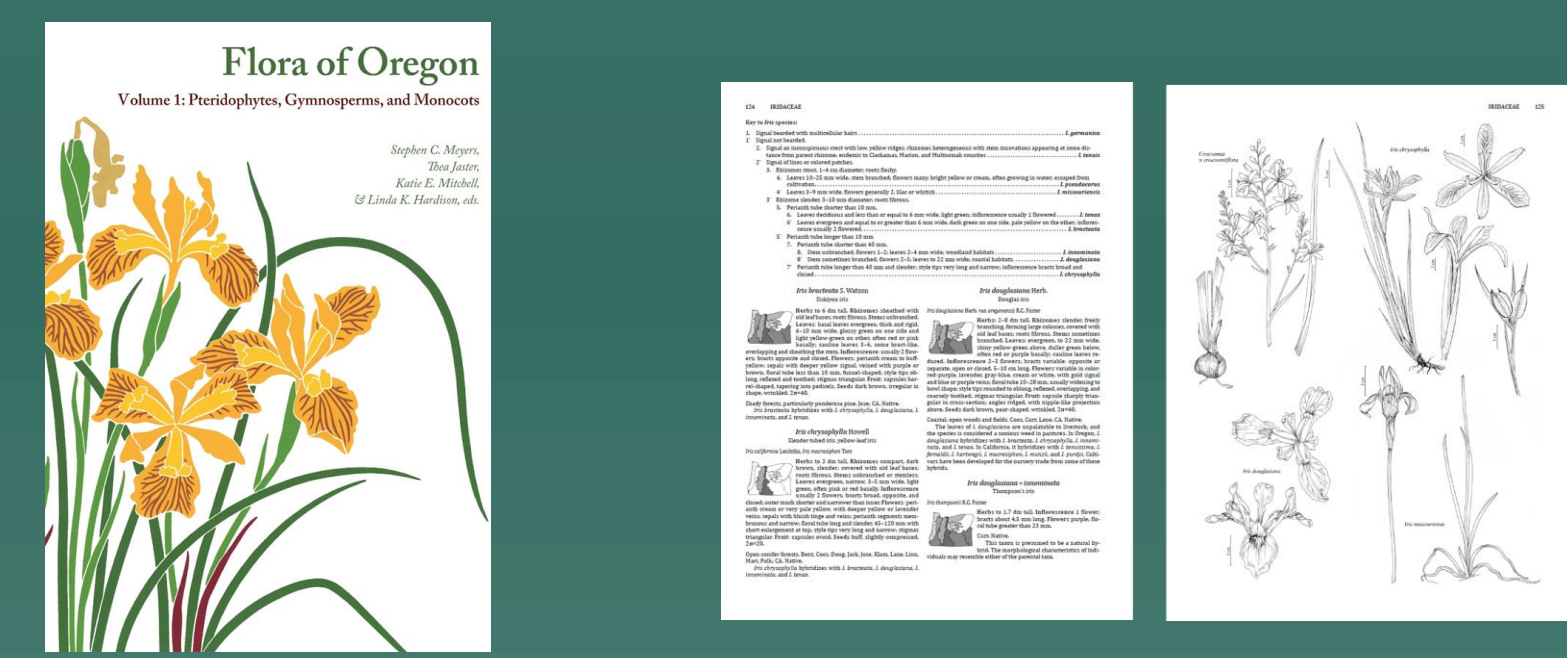
Taxonomic accuracy is also reflected in an interactive portal for native plant gardeners, which will be available through the *Oregon Symbiota Portal*.

The impact of the OregonFlora website on a diverse audience reinforces the relevance of the written flora as the foundation of interactive and engaging digital resources which promote scientific literacy.

The *Flora of Oregon* is based on a carefully curated dataset with a taxonomic thesaurus at its core. It includes morphology data, occurrence data (using herbarium specimens and observations), and images (specimens and field photos). We produce accurate plant identification tools designed to reach all audiences, from budding botanist to professional. The quality of the underlying dataset leads to reliable products.



The *Flora of Oregon* offers a peer-reviewed standard for plant identification and plant knowledge. The flora and database are interdependent. Each is integral in the development of the other.



Nomenclature as an example of interdependency between data and flora

Scientific names are always in flux. A complete regional synonymy is needed to give people the ability to find taxa by the name they recognize, even when the *Flora* does not accept a scientific name that has formerly been in common usage. To develop this nomenclatural framework, we databased the accepted names from eight regional floras that pertain to Oregon, thereby building a list of accepted names and their pertinent synonyms for a taxonomic thesaurus.

Once the nomenclatural framework was determined, a list of taxonomic concepts for Oregon was able to be formed. Vouchers for all these names were sought, but only the taxa for which vouchers (herbarium collections) were found and identification confirmed are recognized in *Flora of Oregon*.

The database allows web searches on specimens, images and observations to yield all records under a given taxonomic concept regardless of the scientific name used to initiate the search.

This is an important example to elucidate the integral nature between a written flora and its database. Intense data curation is required to build a written flora, which in turn produces scientifically accurate electronic tools that increase the scientific literacy of its users.

Employing Symbiota as a comprehensive tool to reach a variety of audiences

Taxon description from *Flora of Oregon*; terms hoverable to view definitions

Click to view enlarged image and metadata

Click to view interactive distribution map



We are collaborating with Symbiota to build an *Oregon Symbiota portal*. Design elements are based on the *OregonFlora* taxonomic hierarchy and offer plant identification through a dynamic key, occurrence mapping, image viewing, and descriptions transcribed from the *Flora of Oregon* for all treated taxa. Data sharing between entities will allow us to tap into more data points and in turn will grow the central Symbiota dataset.

The Symbiota interactive plant key will allow us to launch our morphology dataset to support this identification tool. In addition to using traditional morphological characters to identify a plant, spatial data—including user-defined occurrence coordinates or areas, ecoregion, and habitat—are available options. Selecting the general locality of an unknown plant significantly reduces the number of candidate taxa before keying is begun. As the user selects plant characters, the number of potential matches progressively diminishes.

The default list of morphological characters is general (petal number and color, habit, ovary position, etc.); we are developing specialized sets of characters to aid in the identification of more technical plant groups, such as *Carex* (sedges) or Pteridophytes (ferns and fern allies).