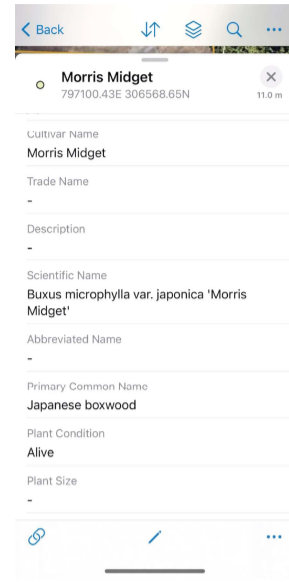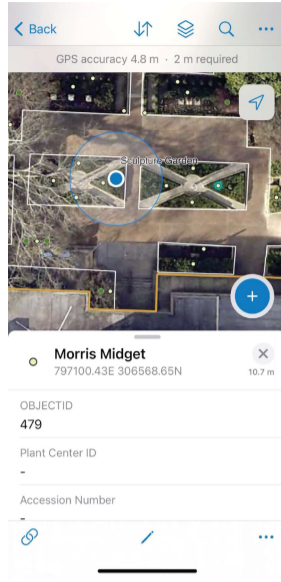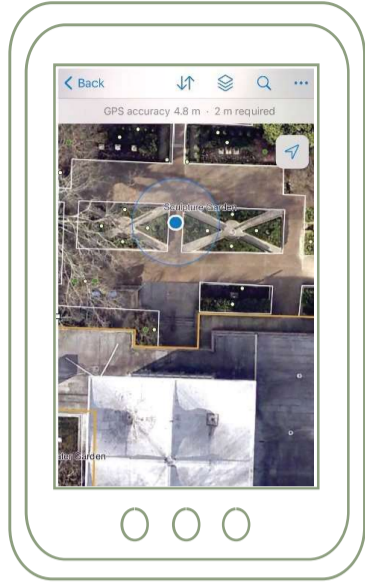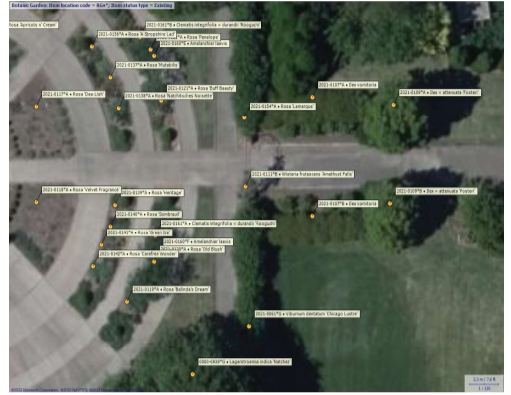# Preserving Biodiversity with IrisBG and ESRI Software Solutions

Laura Knutson Murray, Magnolia Maps
Mari Rustan, IrisBG
Poster # 350 for SPNHC 2022, Edinburgh

<-- Use ESRI Field Maps to record GPS locations for individual plants, taxonomy, plant health, boundaries, features, and other attributes. This data is then imported into IrisBG.
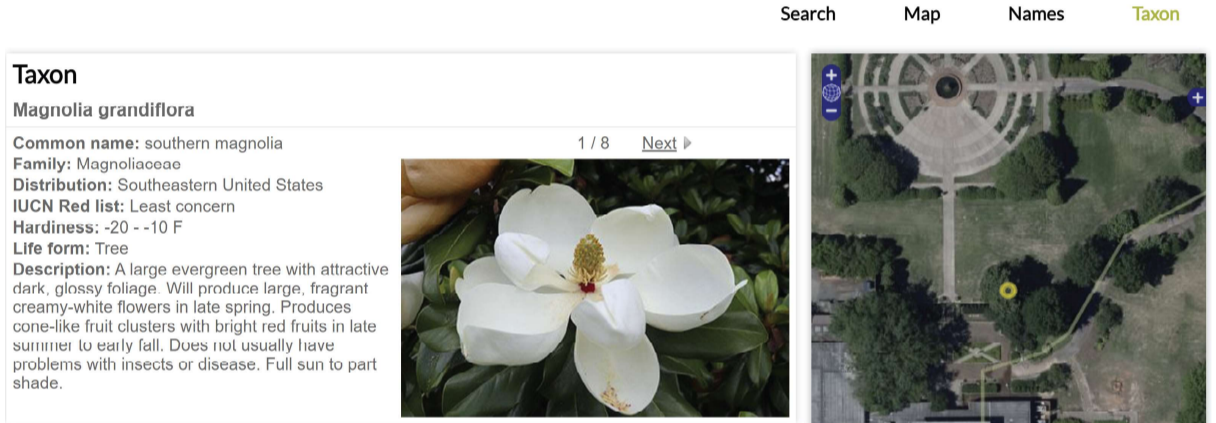
IrisBG Map Report

Preserving institutional knowledge before senior staff retire
Case Study: the Memphis Botanic Garden

When the Senior Horticulturist at the Memphis Botanic Garden announced that he would be retiring, the Memphis Botanic Garden instantly realised that Rick Pudwell's four decades of curatorial knowledge about their collections would go with him. The Memphis Botanic Garden hired Laura Knutson Murray of Magnolia Maps to assist in building a living collections database using ESRI and IrisBG softwares.

The data was available in three formats: an excel spreadsheet of the certified arboretum species but without GPS coordinates, the collection itself, and in the memory of the horticulture staff. The arboretum data was uploaded into IrisBG. The inventory of the individual gardens needed to be completed outside and offline. Magnolia Maps created a high resolution, navigable, online basemap for the horticulturalists to reference on tablets they carried throughout the garden while adding data points and taxonomy. This data would later be uploaded into ArcGIS Online once a WiFi connection is established and then synced with IrisBG. Ten months into the living collections inventory process, the collection can be viewed and searched on IrisBG's Web Explorer.

Search   Map   Names   Taxon

Taxon
Magnolia grandiflora

Common name: southern magnolia   1 / 8   Next ▶
Family: Magnoliaceae
Distribution: Southeastern United States
IUCN Red list: Least concern
Hardiness: -20 - -10 F
Life form: Tree
Description: A large evergreen tree with attractive dark, glossy foliage. Will produce large, fragrant creamy-white flowers in late spring. Produces cone-like fruit clusters with bright red fruits in late summer to early fall. Does not usually have problems with insects or disease. Full sun to part shade.

IrisBG Web Explorer at Memphis Botanic Garden

https://membg.gardenexplorer.org/

Iris pseudacorus
1996-0001*A

1. Build from your available data and manage the data in IrisBG

xls/xlsx, csv, txt, dbf, dwg/dxf, and institutional knowledge

2. Record data in the garden from a device whilst on-or offline. Upload data from your device into GIS and sync with IrisBG.

Online: IrisBG (Windows) or
ESRI Field Maps (iOS or Android)

Offline: ESRI Field Maps (iOS or Android)

ArcGIS Online <--> IrisBG

3. Share your garden's data with the world

-IrisBG Web Explorer
-IrisBG Web Store (Index Seminum)
-APGA Plant Collections Network
-BGCI
-GBIF
-USDA Agricultural Research Service

Join the community of 200+ gardens, arboreta, herbaria, and private estates world wide that are using IrisBG!

IrisBG
Collection Management

+ Magnolia Maps

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