

# Acadia Seedbank Program

## Irving Biodiversity Collection

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Native plant species worldwide are becoming increasingly threatened by habitat loss, invasive species, climate change, disease, and over exploitation. One strategy to help preserve plant biodiversity is through the establishment of seedbanks. Within the K.C. Irving Environmental Science Centre, a small but growing seedbank, preserves seeds of Acadian Forest Region plants and its associated wetlands, as a component of the Irving Biodiversity Collection.

Seedbank research at the K.C. Irving Centre has involved the development of procedures in the following areas:

### Collection

Seeds, associated structures, and voucher specimens are collected from plant species in the Acadian Forest Region and brought to the facility.



### Processing

Seeds are removed from the samples and separated from excess material. They are then sorted into containers.



### Desiccation

Seeds are dried in a desiccation chamber. This prepares the seed for cold storage.

### Storing

Dried seeds are stored at -20 C in a freezer to maintain seed quality and viability.



Dr. Robin Browne collecting seeds.

### Testing

Seeds are tested at various times before and after storage to determine viability and germination. Research is done to establish procedures to maximize germination.



Some of the faculty, staff, and volunteers who have contributed to the seedbank program.

### Regeneration

Plants that are established from seed are used in research and restoration activities.



Assessing germination; circles indicate germinated seeds.

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