Research with Araceae Living Collections



Forest canopy on Barro Colorado

Climbing trees with climbing spikes enables one to go nearly anywhere to get to epiphytes.





Climbing trees gives an opportunity to take photos of epiphytes in natural conditions

Method of Field work

Use of boats to get into remote areas without roads

Collecting with pack animals

Use of helicopters to reach inaccessible areas.

EXIT RELEASE

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Helicopter over a clearing at gold mine

Landing in clearing in forest

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Use of light aircraft

Travel with small river craft

Sleeping in hammocks

Larger river craft on Amazon

Smaller boats on smaller streams

Collecting with landing craft

Use of all-terrain vehicles





Use of propane dryer

Modern field vehicle

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Cooking facilities

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Constructing special camper



Automated fire extinguisher

Plant dryer

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Clipper pole storage

Talland



100 pound propane tank



Deeply rutted roads

Camping can be anywhere



Camper fully set up with awnings



Processing film in camper

Some roads are very bad

Camping by stream



Collecting with climbing irons

Collecting in plastic bags

Collecting with rental vehicle



Plant pressing operation



Washing plants for shipment



Stem cuttings ready for shipment
Greenhouse at MBG

319 TBY

Aroid House before opening



Air moving system

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Air moving system with view of fan









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Shade cloth on ceiling and walls





Heating system – hot water with fins ----

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Sphagnum wall

Catwalk shelf for seedlings

Central wall for epiphytes









Tiered fiberglass shelving







Mist lines provide humidity

Cool cells allow water to pass through



Center or Operations- computerized record keeping system



Potting area for repotting and planting

MAN GARD

F











Sphagnum moss

Newly potted plants

Holding area for problem plants

Rooted plants in sphagnum moss

Plants potted directly in sphagnum moss

Plants in trays of sphagnum

Cuttings beginning to leaf out

Sprouted cutting
Cuttings with bottom heat

TO

Anthurium sect. Cardiolonchium

1-2-2



Anthurium rupicola

Vine in hanging basket

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Dieffenbachia collections

Plants ready to be filed



Anchomanes collection



Amorphophallus collection

Pots labeled with stainless steel tags

Aquatic collection

Aquatic collection

Philodendron collection



Philodendron giganteum

Dieffenbachia collection

Anthurium sect. Pachyneurium

Anthurium sect. *Pachyneurium*













Alocasia collection

ILINI.

Philodendron collection

Anthurium lazorii



Dieffenbachia section

Philodendron fendleri







Anthurium sect. *Calomystrium*

South end of center wall





East catwalk shelves with hanging baskets





Catwalk along west side of wall



View from beneath catwalk


Temperate room





Anthurium warocqueanum

Arisaema heterophyllum





Research in Office



Preparing descriptions of live plants

Use of color chart

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Removing apical meristem

Aroid seedlings in culture bottles

Aroids in culture

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Revisionary work for the past 10 years has been in South America

Most work has been in Ecuador producing florulas Flora of Lita-San Lorenzo (Esmeraldas) Flora of Shell-Mera (Pastaza) Flora of Cordillera del Condor

Other aroid projects in South America

Flora of Paraguay

Flora of the Guianas

Checklists for Colombia, Ecuador, Peru and Bolivia

Review of Araceae of Venezuela

Florulas are efficient means of learning a flora

Colombia- Flora of Bajo Calima (Valle Department)
Flora of La Planada (Nariño Department)
Ecuador- Flora of Lita-San Lorenzo (Esmeraldas)
Flora of Shell-Mera (Pastaza Province)

Flora of Cordillera del Condor (Zamora-Chinchipe)