

MINUTES OF THE ENDANGERED PLANT ADVISORY COUNCIL

Date: October 20, 2016

Time: 1:00 – 5:00 P.M.

Location: Doyle Conner Building, Auditorium

1911 SW 34th Street, Gainesville Florida 32608

Council Members Present:

Mr. Richard L. Moyroud, Chair – Florida Native Plant Society

Dr. Loran C. Anderson, Vice-Chair – Florida State University Botanist

Dr. Jack Stout – Florida Committee for Rare and Endangered Plants and Animals

Dr. Suzanne Koptur – Florida International University Botanist

Mrs. Tina Tuttle – Florida Federation of Garden Clubs

Mr. Bryan K. Benson, Secretary – FDACS/Division of Plant Industry

Members Absent:

Mr. Charles D. Daniel, III – Florida Forestry Association

Mr. David M. Drylie, Jr. – Florida Nursery, Growers and Landscape Association

Others Present:

Ms. Lana Arnold – Florida Federation of Garden Clubs

Ms. Cheryl Peterson – Bok Tower Gardens

Dr. Eric S. Menges – Archbold Biological Station

Ms. Stephanie Koontz – Archbold Biological Station

Mr. Michael R. Jenkins – FDACS/Florida Forest Service

Mr. Steve W. Woodmansee – Key West Botanical Garden

Mr. Jimmy Lange – Fairchild Tropical Botanical Garden

Dr. Patti Anderson – FDACS/Division of Plant Industry

Richard Moyroud opened the meeting by welcoming the council members and other interested parties. A quorum of council members was present.

Prior to introductions, Richard made comments paying respect to Dan Ward as a founding member of the endangered plant advisory council after his passing earlier this year. He was an inspiration and will be missed by many.

Introductions were made of all present.

Richard Moyroud requested council members to review the proposed agenda. It was asked if we could add the topic of the RED Listed (most endangered) plants for discussion on day two. This topic was added to the agenda. *Suzanne Koptur made a motion to accept the agenda. The motion was seconded by Richard Moyroud. Motion passed.*

Richard Moyroud asked council members if there were any questions or suggested changes to the minutes from the 2015 EPAC meeting. It was noted that *Stylisma abdita* was misspelled on page 6 of the 2015 minutes. *Jack Stout made a motion to accept the minutes from the last meeting. The motion was seconded by Suzanne Koptur. Motion passed.*

A total of four Endangered and Threatened Native Flora Conservation Grant Applications were received this year for consideration. All four were received timely, and all met the minimum

eligibility requirements for consideration. All were assigned an application number. A copy of each application was forwarded to council members for review prior to this meeting. The four applications were evaluated and ranked by council members.

The opportunity for grant applicants & past grant recipients to present on their ongoing and future conservation activities were offered to those present.

Archbold Biological Station

Stephanie Koontz presented details outlining conservation efforts, and the past year's programs, as well as ongoing and future efforts. The council was given the opportunity to present any questions regarding the past year or the current application. A copy of the 2015-2016 Final Report was provided to EPAC members.

Bok Tower Gardens

Cheryl Peterson presented details outlining conservation efforts, and the past year's programs, as well as ongoing and future program updates. The council was given the opportunity to present any questions regarding the past year or the current application. A copy of the 2015-2016 Final Report was provided to EPAC members.

Fairchild Tropical Botanical Garden

Jimmy Lange presented details outlining conservation efforts, and the past year's programs, as well as ongoing activities and future plans. The council was given the opportunity to present any questions regarding the past year or the current application. A copy of the 2015-2016 Final Report was provided to EPAC members.

Key West Botanical Garden Society

Steve Woodmansee presented details on conservation efforts and the past year's programs, as well as ongoing and future program updates. The council was given the opportunity to present any questions regarding the past year or the current application.

Following the presentations, council members submitted grant application evaluation forms for all applications considered. Calculations were totaled and explained.

A summary of the anticipated grant allocation is provided in the table below:

| | <u>Grant Amount Requested</u> | <u>Total Funds Recommended for Fiscal Year 2016-2017</u> |
|-------------------------------------|-------------------------------|--|
| Archbold Biological Station | \$100,000.00 | \$74,358.34 |
| Fairchild Tropical Botanical Garden | \$100,000.00 | \$71,031.78 |
| Bok Tower Gardens | \$100,000.00 | \$71,618.82 |
| <u>Key West Botanical Garden</u> | <u>\$42,570.00</u> | <u>\$22,991.06</u> |
| Totals | \$342,570.00 | \$240,000.00 |

Loran Anderson made a motion to use the percentage based ranking as used in past years. Suzanne Koptur seconded. Motion passed.

Loran Anderson made a motion to adjourn. Richard Moyroud seconded. Motion passed.

THE MEETING ADJOURNED FOR THE DAY

MINUTES OF THE ENDANGERED PLANT ADVISORY COUNCIL

Date: October 21, 2016
 Time: 8:00 – 11:00 A.M.
 Location: Doyle Conner Building, Auditorium
 1911 SW 34th Street, Gainesville Florida 32608

Council Members Present:

Mr. Richard L. Moyroud, Chair – Florida Native Plant Society
 Dr. Loran C. Anderson, Vice-Chair – Florida State University Botanist
 Dr. Jack Stout – Florida Committee for Rare and Endangered Plants and Animals
 Dr. Suzanne Koptur – Florida International University Botanist
 Mrs. Tina Tuttle – Florida Federation of Garden Clubs
 Mr. Bryan K. Benson, Secretary – FDACS/Division of Plant Industry

Members Absent:

Mr. Charles D. Daniel, III – Florida Forestry Association
 Mr. David M. Drylie, Jr. – Florida Nursery, Growers and Landscape Association

Others Present:

Dr. Patti Anderson – FDACS/Division of Plant Industry
 Ms. Lana Arnold – Florida Federation of Garden Clubs
 Dr. Eric S. Menges – Archbold Biological Station
 Ms. Stephanie Koontz – Archbold Biological Station
 Mr. Michael R. Jenkins – FDACS/Florida Forest Service
 Mr. Houston Snead – Jacksonville Zoo and Gardens

Richard Moyroud opened the meeting by welcoming back the council members and other interested parties. Introductions were made by all present.

Four Year Interval Review of Regulated Plant Index

Each plant listed on the regulated plant index is required to be reviewed by the council every four years. This year the list included 341 plants that were last reviewed in 2012. All plants listed below were reviewed and comments updates and changes are outlined below the following the table of plants being reviewed.

| ID | Scientific Name | Common Name | Notes |
|------|-------------------------------|-------------------------|------------------------------------|
| 1510 | <i>Acacia angustissima</i> | prairie acacia | See Contr. Dudley Herb. 1942 |
| 6 | <i>Acacia choriophylla</i> | tamarindillo | Delisted 1999; reinstated Mar 2000 |
| 7 | <i>Acacia tortuosa</i> | poponax | Not recently seen |
| 8 | <i>Acoelorrhaphe wrightii</i> | Everglades palm | |
| 9 | <i>Acrostichum aureum</i> | golden leather fern | |
| 11 | <i>Actaea pachypoda</i> | doll's eyes | |
| 18 | <i>Adiantum tenerum</i> | brittle maidenhair fern | |
| 20 | <i>Aeschynomene pratensis</i> | meadow jointvetch | |
| 1529 | <i>Agave neglecta</i> | wild century plant | Added 2010 |
| 21 | <i>Ageratum littorale</i> | Cape Sable whiteweed | |
| 23 | <i>Aletris bracteata</i> | bracted colicroot | |

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|------------|------------------------------------|-------------------------------------|---|
| 24 | <i>Alvaradoa amorphoides</i> | alvaradoa | |
| 25 | <i>Amorpha crenulata</i> | Miami lead plant | Isely uses <i>Amorpha herbacea</i> var. <i>crenulata</i> |
| 26 | <i>Andropogon arctatus</i> | pinewoods bluestem | |
| 29 | <i>Anemia wrightii</i> | parsley fern | |
| 30 | <i>Angadenia berteroi</i> | pineland golden trumpet | |
| 31 | <i>Aquilegia canadensis</i> | red columbine | |
| 32 | <i>Arabis canadensis</i> | sicklepod | |
| 35 | <i>Argythamnia blodgettii</i> | Blodget's wild mercury | |
| 39 | <i>Aristolochia pentandra</i> | Marsh's dutchman's pipe | |
| 40 | <i>Aristolochia tomentosa</i> | pipevine | |
| 41 | <i>Arnica acaulis</i> | leopard's bane | Added 2001 |
| 42 | <i>Arnoglossum album</i> | white-flowered plantain | Added 2001 |
| 47 | <i>Asimina tetramera</i> | scrub pawpaw, 4-petal pawpaw | |
| 48 | <i>Asplenium auritum</i> | auricled spleenwort | |
| 53 | <i>Asplenium dentatum</i> | slender spleenwort | |
| 49 | <i>Asplenium monanthes</i> | San Felasco spleenwort | |
| 51 | <i>Asplenium pumilum</i> | dwarf spleenwort | |
| 52 | <i>Asplenium serratum</i> | bird's nest spleenwort | |
| 54 | <i>Asplenium verecundum</i> | delicate spleenwort | |
| 55 | <i>Aster hemisphericus</i> | an aster | = <i>Eurybia hemispherica</i> |
| 56 | <i>Aster spinulosus</i> | pinewoods aster | = <i>Eurybia spinulosus</i> |
| 57 | <i>Athyrium filix-femina</i> | southern lady fern | |
| 61 | <i>Balduina atropurpurea</i> | purple balduina | |
| 1511 | <i>Baptisia calycosa</i> | Canby's wild indigo | |
| 62 | <i>Baptisia hirsuta</i> | hairy wild indigo | Isely uses <i>Baptisia calycosa</i> var. <i>villosa</i> |
| 63 | <i>Baptisia megacarpa</i> | Apalachicola wild indigo | |
| 66 | <i>Basiphyllaea corallicola</i> | Carter's orchid | |
| 69 | <i>Bigelovia nuttallii</i> | Nuttall's rayless goldenrod | |
| 70 | <i>Blechnum occidentale</i> | sinkhole fern | |
| 73 | <i>Bletia purpurea</i> | pine-pink orchid | |
| 75 | <i>Bourreria cassinifolia</i> | little strongbark | |
| 79 | <i>Brickellia cordifolia</i> | heart-leaf brickell-bush | 08 changed common name from Flyr's nemesis |
| 80 | <i>Brickellia mosieri</i> | Brickell-bush | |
| 81 | <i>Bulbophyllum pachyrrachis</i> | rat-tail orchid | |
| 83 | <i>Burmannia flava</i> | Fakahatchee burmannia | |
| 87 | <i>Cacalia diversifolia</i> | Indian plantain | = <i>Arnoglossum diversifolium</i> |
| 90 | <i>Calamintha ashei</i> | Ashe's calamintha | Synonym: <i>Satureja ashei</i> |
| 92 | <i>Calamintha georgiana</i> | Georgia catamint | |
| 93 | <i>Calamovilfa curtissii</i> | Curtis' sandgrass | |
| 94 | <i>Callirhoe papaver</i> | poppy mallow | |
| 99 | <i>Calycanthus floridus</i> | sweet shrub | |
| 101 | <i>Calyptanthus zuzygium</i> | myrtle-of-the-river | |
| 102 | <i>Calystegia catesbeiana</i> | Catesby's bindweed | |
| 103 | <i>Campanula robinsiae</i> | Chinsegut bellflower | |
| 104 | <i>Campylocentrum pachyrrhizum</i> | leafless orchid | |
| 105 | <i>Campyloneurum angustifolium</i> | narrow strap fern | |
| 106 | <i>Campyloneurum costatum</i> | tailed strap fern | |
| 110 | <i>Canella winterana</i> | wild cinnamon | |
| 111 | <i>Carex baltzellii</i> | Baltzell's sedge | |

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| 115 | <i>Cassia keyensis</i> | Keys' cassia | Isely: <i>Chamaecrista lineata</i> var. <i>keyensis</i> |
| 117 | <i>Catesbaea parviflora</i> | small-flowered lily-thorn | |
| 118 | <i>Catopsis berteroniana</i> | yellow catopsis | |
| 119 | <i>Catopsis floribunda</i> | many-flowered airplant | |
| 120 | <i>Catopsis nutans</i> | nodding catopsis | |
| 122 | <i>Celtis iguanaea</i> | iguana hackberry | |
| 123 | <i>Celtis pallida</i> | spiny hackberry | |
| 131 | <i>Cereus robinii</i> | tree cactus | = <i>Pilosocereus robinii</i> var. <i>robinii</i> |
| 133 | <i>Chamaesyce cumulicola</i> | sand dune spurge | |
| 134 | <i>Chamaesyce deltoidea</i> | rockland spurge | On Federal list as <i>Euphorbia deltoidea</i> |
| 135 | <i>Chamaesyce garberi</i> | Garber's spurge | On Federal list as: <i>Euphorbia garberi</i> |
| 137 | <i>Chamaesyce porteriana</i> | Porter's spurge | |
| 141 | <i>Cheilanthes microphylla</i> | southern lip fern | |
| 142 | <i>Chionanthus pygmaeus</i> | pygmy fringe tree | |
| 148 | <i>Cienfuegosia yucatanensis</i> | yellow-hibiscus | |
| 158 | <i>Colubrina cubensis</i> | colubrina | |
| 163 | <i>Conradina glabra</i> | Apalachicola rosemary | |
| 165 | <i>Corallorhiza odontorhiza</i> | autumn coralroot | |
| 171 | <i>Cornus alternifolia</i> | pagoda dogwood | |
| 172 | <i>Cranichis muscosa</i> | moss orchid | Not recently seen |
| 173 | <i>Crataegus phaenopyrum</i> | Washington thorn | |
| 177 | <i>Crossopetalum rhacoma</i> | rhacoma | 92 scores: 1,1,.5,2,1 =5.5 |
| 180 | <i>Cryptotaenia canadensis</i> | honewort | |
| 181 | <i>Ctenitis sloanei</i> | Florida tree fern/red-hair comb-fern | |
| 182 | <i>Ctenitis submarginalis</i> | brown-hair comb-fern | |
| 184 | <i>Cucurbita okeechobeensis</i> | Okeechobee gourd | |
| 185 | <i>Cupania glabra</i> | cupania | |
| 192 | <i>Cyrtopodium punctatum</i> | cow-horn orchid | |
| 200 | <i>Deeringothamnus rugelii</i> | yellow squirrel-banana | |
| 201 | <i>Delphinium carolinianum</i> | Carolina larkspur | |
| 202 | <i>Dennstaedtia bipinnata</i> | cuplet fern | |
| 208 | <i>Dicerandra thinicola</i> | Titusville balm | |
| 214 | <i>Dodecatheon meadia</i> | shooting star | |
| 216 | <i>Drosera filiformis</i> | dew-thread | |
| 225 | <i>Eltroplectris calcarata</i> | spurred neottia | |
| 226 | <i>Encyclia boothiana</i> | dollar orchid | |
| 227 | <i>Encyclia cochleata</i> | Florida clamshell orchid | |
| 228 | <i>Encyclia pygmaea</i> | dwarf epidendrum | |
| 230 | <i>Epidendrum acunae</i> | Acuna's epidendrum | |
| 231 | <i>Epidendrum anceps</i> | dingy-flowered epidendrum | |
| 232 | <i>Epidendrum conopseum</i> | green-fly orchid | Commercially Exploited |
| 233 | <i>Epidendrum difforme</i> | umbelled epidendrum | |
| 234 | <i>Epidendrum nocturnum</i> | night-scented epidendrum | |
| 236 | <i>Epidendrum rigidum</i> | rigid epidendrum | |
| 237 | <i>Epidendrum strobiliferum</i> | matted epidendrum | |
| 238 | <i>Epigaea repens</i> | trailing arbutus | |
| 242 | <i>Eragrostis tracyi</i> | Sanibel lovegrass | |
| 246 | <i>Ernodea cokeri</i> | one-nerved ernodea | |
| 248 | <i>Eryngium cuneifolium</i> | scrub eryngium | |

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| 250 | <i>Erythronium umbilicatum</i> | dimpled dogtooth-violet | |
| 251 | <i>Eugenia confusa</i> | redberry eugenia | |
| 252 | <i>Eugenia rhombea</i> | red stopper | |
| 265 | <i>Forestiera godfreyi</i> | Godfrey's swamp privet | |
| 270 | <i>Galeandra beyrichii</i> | helmet orchid | |
| 275 | <i>Goodyera pubescens</i> | downy rattlesnake orchid | |
| 277 | <i>Govenia utriculata</i> | Gowen's orchid | |
| 278 | <i>Guaiacum sanctum</i> | lignum vitae | |
| 280 | <i>Guzmania monostachia</i> | Fuchs' bromeliad | |
| 289 | <i>Harperocallis flava</i> | Harper's beauty | |
| 290 | <i>Harrisella filiformis</i> | threadroot orchid | |
| 128 | <i>Harrisia eriophora</i> | fragrant prickly-apple | = <i>Cereus fragrans</i> |
| 129 | <i>Harrisia gracilis</i> | west coast prickly-apple | <i>C. gracilis</i> vars.: <i>Harrisia aboriginum</i> & <i>H. simpsonii</i> |
| 291 | <i>Hartwrightia floridana</i> | hartwrightia | |
| 295 | <i>Hepatica nobilis</i> | liverleaf | |
| 296 | <i>Hexalectris spicata</i> | crested coralroot | |
| 297 | <i>Hexastylis arifolia</i> | heartleaf wild ginger | |
| 299 | <i>Hippomane mancinella</i> | manchineel | |
| 300 | <i>Hybanthus concolor</i> | green violet | |
| 301 | <i>Hydrangea arborescens</i> | wild hydrangea | |
| 303 | <i>Hymenocallis henryae</i> | Henry's spiderlily | |
| 304 | <i>Hypelate trifoliata</i> | inkwood, white ironwood | |
| 305 | <i>Hypericum cumulicola</i> | Highlands.scrub hypericum | |
| 307 | <i>Hypericum edisonianum</i> | Edison ascyrum | |
| 308 | <i>Hypericum lissophloeus</i> | smooth-barked.St.John's wort | |
| 312 | <i>Ilex amelanchier</i> | serviceberry holly | |
| 314 | <i>Ilex krugiana</i> | Krug's holly | |
| 319 | <i>Illicium parviflorum</i> | star anise | |
| 320 | <i>Indigofera keyensis</i> | Keys' indigo | Isely uses: <i>Indigofera mucronata</i> var. <i>keyensis</i> |
| 321 | <i>Ionopsis utricularioides</i> | delicate ionopsis | |
| 322 | <i>Ipomoea microdactyla</i> | wild potato morning glory | |
| 323 | <i>Ipomoea tenuissima</i> | Rockland morning glory | |
| 1514 | <i>Isoetes appalachiana</i> | Appalachian quillwort | |
| 1513 | <i>Isoetes boomii</i> | Boom's quillwort | |
| 1515 | <i>Isoetes hyemalis</i> | winter quillwort | |
| 328 | <i>Isotria verticillata</i> | whorled pogonia | |
| 333 | <i>Jacquemontia havanensis</i> | Havana clustervine | |
| 335 | <i>Jacquemontia reclinata</i> | beach jacquemontia | |
| 339 | <i>Justicia crassifolia</i> | thick-leaved water-willow | |
| 349 | <i>Lantana depressa</i> | pineland lantana | |
| 350 | <i>Lechea cernua</i> | scrub pinweed | |
| 351 | <i>Lechea divaricata</i> | spreading pinweed | |
| 354 | <i>Leitneria floridana</i> | corkwood | |
| 355 | <i>Leochilus labiatus</i> | lipped orchid | |
| 356 | <i>Lepanthopsis melanantha</i> | tiny orchid | |
| 1516 | <i>Liatris gholsonii</i> | bluffs blazing-star | |
| 359 | <i>Liatris provincialis</i> | Godfrey's blazing-star | |
| 360 | <i>Licaria triandra</i> | Gulf licaria | |

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| 361 | <i>Lilium catesbaei</i> | Catesby lily | |
| 362 | <i>Lilium iridollae</i> | Panhandle lily | |
| 366 | <i>Lindera subcoriacea</i> | bog spicebush | |
| 367 | <i>Linum arenicola</i> | sand flax | |
| 368 | <i>Linum carteri</i> | Everglades flax | |
| 1517 | <i>Linum macrocarpum</i> | big-seed flax | |
| 369 | <i>Linum westii</i> | West's flax | |
| 370 | <i>Liparis nervosa</i> | tall twayblade | |
| 371 | <i>Listera australis</i> | southern twayblade | |
| 375 | <i>Lobelia cardinalis</i> | cardinal flower | |
| 376 | <i>Lomariopsis kunzeana</i> | climbing holly-fern | |
| 379 | <i>Lupinus westianus</i> | Gulf-coast lupine | |
| 384 | <i>Lycopodium dichotomum</i> | hanging clubmoss | Syn: <i>Phlegmariurus dichotomus</i> |
| 389 | <i>Lythrum curtissii</i> | Curtis' loosestrife | |
| 394 | <i>Macradenia lutescens</i> | Trinidad macradenia | |
| 395 | <i>Macranthera flammea</i> | hummingbird flower | |
| 396 | <i>Magnolia acuminata</i> | cucumber-tree | |
| 397 | <i>Magnolia ashei</i> | Ashe's magnolia | syn: <i>Magnolia macrophylla</i> ssp. <i>ashei</i> |
| 398 | <i>Magnolia pyramidata</i> | pyramid magnolia | |
| 401 | <i>Malaxis unifolia</i> | green adder's-mouth orchid | |
| 403 | <i>Malus angustifolia</i> | crabapple | |
| 410 | <i>Matelea alabamensis</i> | Alabama spiny pod | |
| 411 | <i>Matelea baldwyniana</i> | Baldwin's spiny pod | |
| 413 | <i>Matelea flavidula</i> | yellow flowered spiny pod | |
| 414 | <i>Matelea floridana</i> | Florida spiny pod | |
| 415 | <i>Matelea gonocarpos</i> | angle pod | |
| 416 | <i>Matelea pubiflora</i> | sandhill spiny pod | |
| 417 | <i>Maxillaria crassifolia</i> | hidden orchid | |
| 418 | <i>Maxillaria parviflora</i> | minnie-max | |
| 419 | <i>Medeola virginiana</i> | Indian cucumber | |
| 421 | <i>Microgramma heterophylla</i> | climbing vine fern | |
| 423 | <i>Monotropa hypopithys</i> | pinemap | |
| 424 | <i>Monotropis reynoldsiae</i> | pygmy-pipes | Syn: <i>Monotropis odorata</i> |
| 425 | <i>Myrcianthes fragrans</i> | Simpson's stopper | |
| 428 | <i>Najas filifolia</i> | slender naiad | |
| 432 | <i>Nephrolepis biserrata</i> | giant sword fern | |
| 437 | <i>Neurodium lanceolatum</i> | ribbon fern | |
| 438 | <i>Nolina atopocarpa</i> | Florida beargrass | |
| 439 | <i>Nolina brittoniana</i> | Britton's beargrass | |
| 444 | <i>Okenia hypogaea</i> | burrowing four-o'clock | |
| 445 | <i>Oncidium bahamense</i> | dancing lady orchid | In error, listed as <i>O. bahamensis</i> . = <i>Tolumnia bahamensis</i> |
| 447 | <i>Oncidium floridanum</i> | Florida oncidium | |
| 448 | <i>Oncidium luridum</i> | mule-ear orchid | |
| 453 | <i>Opuntia triacantha</i> | Keys' Joe-jumper | |
| 456 | <i>Oxypolis greenmanii</i> | giant water-dropwort | |
| 459 | <i>Pachysandra procumbens</i> | Allegheny spurge | |
| 462 | <i>Parnassia caroliniana</i> | Carolina grass-of-Parnassus | |
| 463 | <i>Parnassia grandifolia</i> | grass-of-Parnassus | |

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| 472 | <i>Pellaea atropurpurea</i> | hairy cliff-brake fern | Not recently seen |
| 475 | <i>Peperomia amplexicaulis</i> | clasping peperomia | |
| 476 | <i>Peperomia glabella</i> | cypress peperomia | |
| 477 | <i>Peperomia humilis</i> | peperomia | |
| 478 | <i>Peperomia magnoliifolia</i> | spathulate peperomia | |
| 479 | <i>Peperomia obtusifolia</i> | Florida peperomia | |
| 483 | <i>Phoebanthus tenuifolius</i> | pineland false sunflower | |
| 487 | <i>Phyllanthus leibmannianus</i> | pine woods dainties | |
| 489 | <i>Physocarpus opulifolius</i> | ninebark | |
| 492 | <i>Pilosocereus bahamensis</i> | Bahamian tree cactus | |
| 493 | <i>Pinckneya bracteata</i> | fever tree | |
| 494 | <i>Pinguicula caerulea</i> | blue-flowered butterwort | |
| 495 | <i>Pinguicula ionantha</i> | Panhandle butterwort | |
| 496 | <i>Pinguicula lutea</i> | yellow-flowered butterwort | |
| 497 | <i>Pinguicula planifolia</i> | swamp butterwort | |
| 498 | <i>Pinguicula primuliflora</i> | primrose-fl'ed butterwort | |
| 502 | <i>Pityopsis flexuosa</i> | Florida goldenaster | |
| 505 | <i>Platanthera blephariglottis</i> | white fringed orchid | |
| 506 | <i>Platanthera ciliaris</i> | yellow fringed orchid | |
| 507 | <i>Platanthera clavellata</i> | green rein orchid | |
| 508 | <i>Platanthera cristata</i> | crested fringed orchid | |
| 509 | <i>Platanthera flava</i> | gypsy spikes | |
| 510 | <i>Platanthera integra</i> | orange rein orchid | |
| 511 | <i>Platanthera nivea</i> | snowy orchid | |
| 514 | <i>Pleurothallis gelida</i> | frosted orchid | |
| 516 | <i>Pogonia ophioglossoides</i> | rose pogonia | |
| 517 | <i>Poinsettia pinetorum</i> | Everglades poinsettia | |
| 520 | <i>Polygala smallii</i> | tiny polygala | |
| 521 | <i>Polygonella basiramia</i> | tufted wireweed | syn: <i>Polygonella ciliata</i> var. <i>basiramia</i> |
| 522 | <i>Polygonella macrophylla</i> | large-leaved jointweed | |
| 524 | <i>Polygonum meisnerianum</i> | Mexican tearthumb | |
| 469 | <i>Polypodium dispersa</i> | a polypody | = <i>Pecluma dispersa</i> |
| 470 | <i>Polypodium plumula</i> | plume polypody | = <i>Pecluma plumulum</i> |
| 471 | <i>Polypodium ptilodon</i> | swamp plume polypody | = <i>Pecluma ptilodon</i> |
| 528 | <i>Polyrrhiza lindenii</i> | ghost orchid | = <i>Polyradicion lindenii</i> |
| 530 | <i>Polystachya concreta</i> | pale-flowered polystachya | |
| 531 | <i>Ponthieva brittoniae</i> | Mrs. Britton's shadow witch | |
| 534 | <i>Prescottia oligantha</i> | small-flowered orchid | |
| 558 | <i>Remirea maritima</i> | beach star | syn: <i>Cyperus pedunculatus</i> |
| 563 | <i>Rhexia parviflora</i> | Apalachicola meadow beauty | |
| 565 | <i>Rhipsalis baccifera</i> | mistletoe cactus | |
| 566 | <i>Rhododendron alabamense</i> | Alabama azalea | |
| 567 | <i>Rhododendron austrinum</i> | Florida flame azalea | |
| 569 | <i>Rhododendron chapmanii</i> | Chapman's rhododendron | |
| 575 | <i>Rhynchospora megaplumosa</i> | hairy spikelet beakrush | - |
| 578 | <i>Roystonea elata</i> | Florida royal palm | |
| 579 | <i>Rudbeckia nitida</i> | St. John's Susan | |
| 581 | <i>Ruellia noctiflora</i> | night-flowering wild-petunia | |
| 586 | <i>Salix eriocephala</i> | heart-leaved willow | |

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| 587 | <i>Salix floridana</i> | Florida willow | |
| 589 | <i>Salvia urticifolia</i> | nettle-leaved sage | |
| 592 | <i>Sarracenia leucophylla</i> | white-top pitcher plant | |
| 593 | <i>Sarracenia minor</i> | hooded pitcher plant | |
| 594 | <i>Sarracenia psittacina</i> | parrot pitcher plant | |
| 595 | <i>Sarracenia purpurea</i> | decumbent pitcher plant | |
| 597 | <i>Sarracenia rubra</i> | red-flowered pitcher plant | |
| 599 | <i>Scaevola plumieri</i> | inkberry | |
| 602 | <i>Schisandra coccinea</i> | bay starvine | |
| 603 | <i>Schizachyrium niveum</i> | scrub bluestem | |
| 605 | <i>Schizaea germanii</i> | ray fern | |
| 1518 | <i>Schoenolirion croceum</i> | yellow sunnybells | Value for A is questionable |
| 607 | <i>Scleria lithosperma</i> | Keys' nutrush | |
| 611 | <i>Selaginella eatonii</i> | pygmy spikemoss | |
| 617 | <i>Senna mexicana</i> | Chapman's sensitive plant | |
| 1519 | <i>Silene caroliniana</i> | Carolina catchfly | |
| 627 | <i>Sphenomeris clavata</i> | wedgelet fern | |
| 629 | <i>Sphenostigma coelestinum</i> | Bartram's ixia | |
| 631 | <i>Spigelia loganioides</i> | Levy pinkroot | |
| 632 | <i>Spiranthes adnata</i> | pelexia | |
| 633 | <i>Spiranthes brevilabris</i> | ladies' tresses | |
| 634 | <i>Spiranthes costaricensis</i> | Costa Rican ladies' tresses | |
| 635 | <i>Spiranthes elata</i> | tall neottia | |
| 636 | <i>Spiranthes laciniata</i> | lace-lip ladies' tresses | |
| 637 | <i>Spiranthes longilabris</i> | long-lip ladies' tresses | |
| 639 | <i>Spiranthes ovalis</i> | lesser ladies' tresses | |
| 640 | <i>Spiranthes polyantha</i> | Ft. George ladies' tresses | |
| 642 | <i>Spiranthes torta</i> | southern ladies' tresses | |
| 643 | <i>Spiranthes tuberosa</i> | little pearl-twist | |
| 645 | <i>Stachydeoma graveolens</i> | mock pennyroyal | |
| 646 | <i>Stachys crenata</i> | shade betony | |
| 1520 | <i>Stachys lythroides</i> | hyssop-leaved hedge-nettle | |
| 647 | <i>Stachys tenuifolia</i> | narrow-leaved betony | |
| 648 | <i>Staphylea trifolia</i> | bladder nut | |
| 650 | <i>Stenorrhynchos lanceolatus</i> | leafless beaked orchid | |
| 651 | <i>Stewartia malacodendron</i> | silky camellia | |
| 652 | <i>Strumpfia maritima</i> | pride of Big Pine | |
| 653 | <i>Stylisma abdita</i> | hidden stylisma | Common name changed from 'hidden stylisma' to 'Austin's dawn flower' 2015 |
| 660 | <i>Taxus floridana</i> | Florida yew | |
| 664 | <i>Tectaria fimbriata</i> | least halberd fern | |
| 662 | <i>Tectaria heracleifolia</i> | broad halberd fern | |
| 666 | <i>Tephrosia mohrii</i> | pineland hoary pea | |
| 668 | <i>Tetrazygia bicolor</i> | tetrazygia | |
| 669 | <i>Thalictrum cooleyi</i> | Cooley's meadow-rue | |
| 670 | <i>Thalictrum thalictroides</i> | rue anemone | |
| 671 | <i>Thelypteris augescens</i> | abrupt-tipped maiden fern | |
| 672 | <i>Thelypteris grandis</i> | Collier County maiden fern | |
| 673 | <i>Thelypteris patens</i> | gridscale maiden fern | |

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| 674 | <i>Thelypteris reptans</i> | creeping star-hair fern | |
| 675 | <i>Thelypteris reticulata</i> | lattice-vein fern, cypress fern | |
| 676 | <i>Thelypteris sclerophylla</i> | stiff star-hair fern | |
| 677 | <i>Thelypteris serrata</i> | dentate lattice-vein fern | |
| 681 | <i>Tillandsia balbisiana</i> | inflated wild-pine, reflexed wild-pine | |
| 682 | <i>Tillandsia fasciculata</i> | common wild-pine, stiff-leaved | Listed commercially exploited '93. Now endangered due to <i>Metamasius</i> weevil attacks. |
| 685 | <i>Tillandsia pruinosa</i> | fuzzy-wuzzy air plant | |
| 687 | <i>Tillandsia utriculata</i> | giant wild-pine | Listed commercially exploited '93. Now endangered due to <i>Metamasius</i> weevil attacks. |
| 686 | <i>Tillandsia valenzuelana</i> | soft-leaved wild-pine | |
| 688 | <i>Tipularia discolor</i> | crane-fly orchid | From Endangered to Threatened 2012 |
| 689 | <i>Torreya taxifolia</i> | Florida torreya | |
| 694 | <i>Trichomanes holopterum</i> | entire-winged bristle fern | |
| 695 | <i>Trichomanes krausii</i> | Kraus's bristle fern | |
| 696 | <i>Trichomanes lineolatum</i> | lined bristle fern | |
| 698 | <i>Trichomanes punctatum</i> | Florida bristle fern | |
| 700 | <i>Trillium lancifolium</i> | lance-leaved wake robin | |
| 704 | <i>Triphora trianthophora</i> | three-birds orchid | |
| 714 | <i>Vanilla barbellata</i> | worm-vine orchid | |
| 716 | <i>Vanilla mexicana</i> | unscented vanilla | |
| 717 | <i>Vanilla phaeantha</i> | leafy vanilla | |
| 718 | <i>Vanilla planifolia</i> | commercial vanilla | |
| 719 | <i>Veratrum woodii</i> | false hellebore | |
| 720 | <i>Verbena maritima</i> | coastal vervain | |
| 721 | <i>Verbena tampensis</i> | Tampa vervain | |
| 725 | <i>Vicia ocalensis</i> | Ocala vetch | |
| 726 | <i>Viola tripartita</i> | yellow violet | Formerly incorrectly listed as <i>V. hastata</i> |
| 732 | <i>Warea carteri</i> | Carter's mustard | |
| 738 | <i>Xanthorhiza simplicissima</i> | yellowroot | |
| 741 | <i>Xyris longisepala</i> | karst pond yellow-eyed grass | |
| 743 | <i>Xyris scabrifolia</i> | Harper's yellow-eyed grass | |
| 749 | <i>Zamia</i> spp. | coontie | Commercially Exploited list |
| 750 | <i>Zanthoxylum americanum</i> | prickly-ash | |
| 751 | <i>Zanthoxylum coriaceum</i> | leathery prickly-ash | |
| 752 | <i>Zanthoxylum flavum</i> | yellowheart | |
| 753 | <i>Zephyranthes atamasco</i> | rainlily | |
| 754 | <i>Zephyranthes simpsonii</i> | Simpson's zephyr-lily | |
| 755 | <i>Zephyranthes treatiae</i> | Treat's zephyr-lily | |
| 756 | <i>Zigadenus leimanthoides</i> | coastal death camas | |
| 757 | <i>Ziziphus celata</i> | scrub ziziphus | |

The following plants were discussed and/or edited as listed below:

- #1529 *Agave neglecta*, wild century plant: made note that Richard M. to contact George Rogers and ask for documentation to verify if native and clarify species as *A. neglecta* or exotic as *A. weberii* for a review in 2017.
- #21 *Ageratum littorale*, Cape Sable whiteweed: no changes

- #32 *Arabis canadensis*, sicklepod: New genus, add note for synonym *Boechea canadensis*
- #35 *Argythamnia blodgettii*, Blodget's wild mercury: Considered endemic add -1 to 'F' column and recalculated total score to 4.5
- #47 *Asimina tetramera*, scrub pawpaw: no changes
- #79 *Brickellia cordifolia*, heart-leaf brickel-bush: update common name to heart-leaf Brickell-bush
- #90 *Calamintha ashei*, Ashe's calamintha: update common name to Ashe's calamint and update column 'D' from 3 to 4; new total is 10.5 and is still threatened
- #92 *Calamintha Georgiana*, Georgia's catamint: correct common name to Georgia's calamint
- #103 *Campanula robinsiae*, Chinsegut bellflower: no changes
- #134 *Chamaesyce deltoidea*, rockland spurge: federally listed, make bold
- #135 *Chamaesyce garberi*, Garber's spurge: federally listed, make bold
- #142 *Chionanthus pygmaeus*, pygmy fringe tree: updated column 'D' from 2 to 4; new total is 8 and still endangered
- #172 *Cranichis muscosa*, moss orchid: update column 'B' to 0.5; new total is 2.5 and still endangered. Also remove note 'Not recently seen'
- #208 *Dicerandra thinicola*, Titusville balm: update column 'B' from 0.5 to 1; new total is 3 and still endangered
- #226 *Encyclia boothiana*, dollar orchid: new genus, add note for synonym *Prosthecea boothiana*
- #232 *Epidendrum conopseum*, green-fly orchid: add note for synonym *E. magnoliae*
- #248 *Eryngium cuneifolium*, scrub eryngium: update column 'B' from 1 to 3 and column 'D' from 1 to 3; new total score is 7.5 and still endangered as well as federally listed
- #278 *Guaiacum sanctum*, lignum vitae: no changes
- #305 *Hypericum cumulicola*, Highlands scrub hypericum: update column 'B' from 2 to 3 and column 'D' from 3 to 4; new total score is 9.5 and still endangered due to being federally listed
- #307 *Hypericum edisonianum*, Edison ascyrum: update column 'D' from 2 to 3; new total score is 6.5 and still endangered
- #322 *Ipomoea microdactyla*, wild potato morning glory: update column 'F' from 0 to -1 because plant is endemic; new total score is 4.5 and still endangered
- #350 *Lechea cernua*, scrub pinweed: update column 'B' from 2 to 4; new total score is 12 and still threatened
- #351 *Lechea divaricata*, spreading pinweed: update column 'D' from 2 to 3; new total score is 8 and still endangered
- #368 *Linum carteri*, Everglades flax: no change
- #375 *Lobelia cardinalis*, cardinal flower: no change
- #415 *Matelea gonocarpus*, angel pod: add note for synonym *Gonolobus suberosus*
- #439 *Nolina brittoniana* Britton's beargrass: update column 'D' from 3 to 4; new total score is 8 and still endangered
- #453 *Opuntia triacantha*, Keys' Joe-jumber: add not for synonym *O. abject*
- #456 *Oxypolis greenmanii*, giant water-dropwart: new genus, add note for synonym *Tiedemannia greenmanii*

- #521 *Polygonella basiramia*, tufted wireweed: update to column 'B' from 2 to 3 and column D from 2 to 4; new total score is 10.5 but still endangered due to being federally listed
- #524 *Polygonum meisnerianum*, Mexican tearthumb: add note for synonym *Persicaria meisneriana*
- #589 *Salvia urticifolia*, nettle-leafed sage: maybe two species
- #595 *Sarracenia purpurea*, decumbent pitcher plant: add note for synonym *S. rosea*
- #646 *Stachys crenata*, shade betony: may not be native
- #647 *Stachys tenuifolia*, bladder nut: may be *S. aspera*
- #653 *Stylisma abdita*, hidden stylisma: update column 'B' from 2 to 4; new total score is 9 and still endangered
- #682 *Tillandsia fasciculata*, common wild-pine: no change
- #687 *Tillandsia utriculata*, giant wild-pine: no change
- #726 *Viola tripartita*, yellow violet: remove note
- #732 *Warea carteri*, Carter's mustard: update column 'D' from 2 to 4 and column 'F' from -1 to -2 due to extreme fire dependant life cycle; new total score is 7.5 and still endangered and federally listed
- #757 *Ziziphus celata*, scrub ziziphus: update column 'B' from 0.5 to 1 and column F from -1 to -2; new total score is 3.5 and still endangered and federally listed

Loran Anderson made a motion to accept proposed changes for the 4-year review plant list. Suzanne Koptur seconded. Motion passed.

YouTube sensation and rare plant enthusiast, Dr. Patti Anderson provided live entertainment by singing and playing of Poison Ivy on the ukulele.

The following plant was proposed for de-listing in 2014. The committee reviewed and decided to postpone the decision last year (2015) until further information received and review during next meeting.

Echinodorus floridanus (Florida burhead) **APPROVED FOR DELISTING AS NON-NATIVE**

A = 0.5

B = 1.0

C = 0.5

D = 0.0

E = 1.0

F = -1.0

2.0 – Endangered

Suzanne Koptur made a motion to delist *Echinodorus floridanus* as non-native until further reviewed during next meeting. Loran Anderson seconded. Motion passed.

The following plants were proposed for listing this year and reviewed by the committee for confirmation next year:

Platanthera chapmanii (Chapman's fringed orchid)

A = 1.0

B = 0.5

C = 1.0

D = 1.0

E = 1.0

F = -0.5

4.0 – Endangered

A presentation was given by Houston Snead of Jacksonville Zoo and Gardens on the Chapman's fringed orchid.

Loran Anderson made a motion to accept proposal to list *Platanthera chapmanii* as endangered. Tina Tuttle seconded. Motion passed.

This year Patti Anderson received a few questions about *Agave neglecta*. The species is listed as non-native on the Atlas of Florida Plants website, and non-native plants are not intended to be listed as endangered. A publication by Alan Franck, curator at University of South Florida herbarium, indicates *Agave neglecta* is not native. Richard M. is in touch with an agave specialist in South Florida (George Rogers) and will contact him for an opinion. We can review new information at the next council meeting in 2017.

Discussion on *Eriogonum floridanum*, scrub buckwheat. This plant is federally listed as threatened and state listed as threatened instead of endangered.

Tina Tuttle made a motion to accept the proposal to list *Eriogonum floridanum* as endangered. Suzanne Koptur seconded. Motion passed.

Last year the topic of "The Most Critically Endangered Plants" was discussed and a report of those with a ranking score of less than 4.5 was provided to the committee. This year the list was discussed further. There was discussion about making book-marks and posters. The committee will receive a copy of this list again refined down to those plants with a ranking score of 3.5 or less with this year's minutes. Suzanne provided some information about the ICUN Red List and will continue to explore the option of having some Florida plant species listed as internationally imperiled, probably focusing on Florida endemic plants. Those species that are endangered in Florida, but are abundant in other states or countries, would not be good candidates.

Suzanne Koptur made a motion to authorize Tina Tuttle reach out to the Florida Wildflower Foundation on behalf of the advisory council to see how the Red List can be used for education and conservation of listed plants within Florida. Loran Anderson seconded. Motion passed.

Election of Officers

Suzanne Koptur made a motion to maintain the current officers (Mr. Richard Moyroud, Chair, and Dr. Loran Anderson, Vice Chair). Jack Stout seconded. Motion passed.

Comments from Council and Interested Parties

Michael Jenkins initiated a discussion on mowing of fire adapted species. The mowing is essential to preserve many species. A well timed mowing (with research on the timing) would be great for conservation of these plants.

Tina Tuttle and Lana Arnold representing the Florida Federation of Garden Clubs, Inc. presented the Award 6 Medal for Individual Achievement in Horticulture to Dr. Eric Menges.

Schedule Next Meeting

The next annual EPAC meeting in Gainesville will be scheduled for October 26 & 27, 2017.

A motion was made to adjourn by Loran Anderson. Motion was seconded by Richard Moyroud. Motion passed.

THE MEETING ADJOURNED

Richard Moyroud, Chair