

Espírito Santo, Brazil

BRYOPHYTES of TRINDADE ISLAND

Denise Pinheiro da Costa & Maria Alice de Rezende

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

Photos and illustrations: Micheline Carvalho-Silva (landscapes), Maria Alice de Rezende (illustrations and species), and Jeff Duckett (species). Produced by Maria Alice de Rezende [malicerezende@yahoo.com.br] and Denise Pinheiro da Costa [denisepinheirodacosta@gmail.com], with the assistance from Juliana Philipp, and Valéria Sampaio, Field Museum. Support from: Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Natural History Museum of London, CNPq, and FAPERJ.



© Field Museum (2021) CC BY-NC 4.0. Licensed works are free to use/share/remix with attribution, but commercial use of the original work is not permitted.

[fieldguides.fieldmuseum.org] [1406] version 1 1/2022



Located in the South Atlantic Ocean, Trindade Island, of volcanic origin, is about 1,200 km off the Brazilian coast (20°31'30"S and 29°19'30"W), comprising 32 km². In 2007, the Trindade Island Scientific Research Program (PROTRINDADE) was created, and a scientific station was built on site. The highest point is Pico do Bonifácio (625 m), and the island has fresh and potable water. To date, we record 38 species of bryophytes (20 liverworts, 17 mosses, and one hornwort) without endemic and endangered species, and the bryoflora is similar to the Atlantic Forest. The island's original vegetation came close to being destroyed, but in 1990, a restoration project eliminated the goats that inhabited the place. In the mountainous area of the island, the species that draws attention is the *Cyathea delgadii*, which forms the Giant Fern Forest up to 9 m in height, and where the bryophytes species are concentrated.



Landscapes of Trindade Island: Giant Fern Forest and overview of Praia dos Portugueses with mooring point.

Espírito Santo, Brazil

BRYOPHYTES of TRINDADE ISLAND

2

Denise Pinheiro da Costa & Maria Alice de Rezende

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

Photos and illustrations: Micheline Carvalho-Silva (landscapes), Maria Alice de Rezende (illustrations and species), and Jeff Duckett (species). Produced by Maria Alice de Rezende [malicerezende@yahoo.com.br] and Denise Pinheiro da Costa [denisepinheirodacosta@gmail.com], with the assistance from Juliana Philipp, and Valéria Sampaio, Field Museum. Support from: Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Natural History Museum of London, CNPq, and FAPERJ.



© Field Museum (2021) CC BY-NC 4.0. Licensed works are free to use/share/remix with attribution, but commercial use of the original work is not permitted.

[fieldguides.fieldmuseum.org] [1406] version 1 1/2022



Landscapes of Trindade Island: (A-B) coastal plain of Praia do Andrada (view from the scientific station) and (C) trail 5 Farrilhões (south).


Espírito Santo, Brazil

BRYOPHYTES of TRINDADE ISLAND

Denise Pinheiro da Costa & Maria Alice de Rezende

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

Photos and illustrations: Micheline Carvalho-Silva (landscapes), Maria Alice de Rezende (illustrations and species), and Jeff Ducket (species). Produced by Maria Alice de Rezende [malicerezende@yahoo.com.br] and Denise Pinheiro da Costa [denisepinheirodacosta@gmail.com], with the assistance from Juliana Philipp, and Valéria Sampaio, Field Museum. Support from: Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Natural History Museum of London, CNPq, and FAPERJ.

 © Field Museum (2021) CC BY-NC 4.0. Licensed works are free to use/share/remix with attribution, but commercial use of the original work is not permitted.

[fieldguides.fieldmuseum.org] [1406] version 1 1/2022

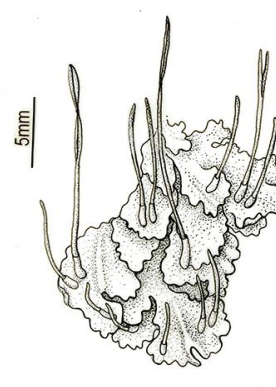
Anthocerotophyta



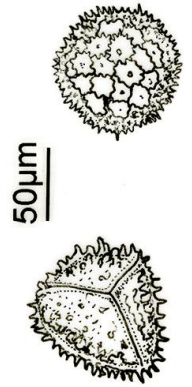
1 *Anthoceros punctatus*
ANTHOCEROTACEAE



2 *Anthoceros punctatus*
ANTHOCEROTACEAE



3 *Anthoceros punctatus*
ANTHOCEROTACEAE

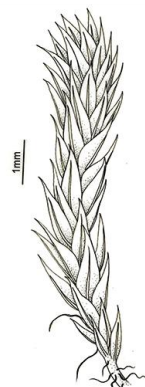


4 *Anthoceros punctatus*
ANTHOCEROTACEAE

Bryophyta



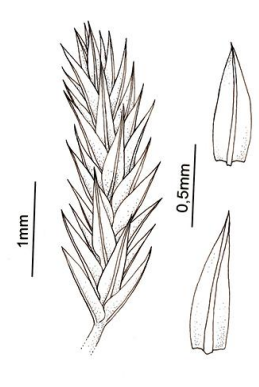
5 *Philonotis hastata*
BARTRAMIACEAE



6 *Philonotis hastata*
BARTRAMIACEAE



7 *Philonotis uncinata*
BARTRAMIACEAE



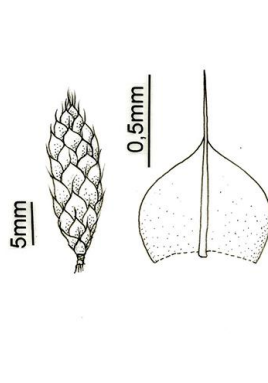
8 *Philonotis uncinata*
BARTRAMIACEAE



9 *Bryum arachnoideum*
BRYACEAE



10 *Bryum arachnoideum*
BRYACEAE



11 *Bryum arachnoideum*
BRYACEAE



12 *Bryum argenteum*
BRYACEAE



13 *Bryum argenteum*
BRYACEAE


Espírito Santo, Brazil

BRYOPHYTES of TRINDADE ISLAND




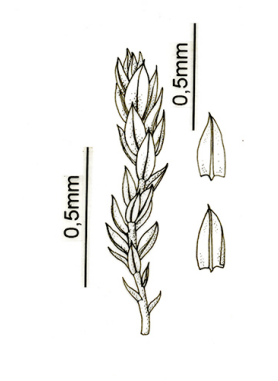

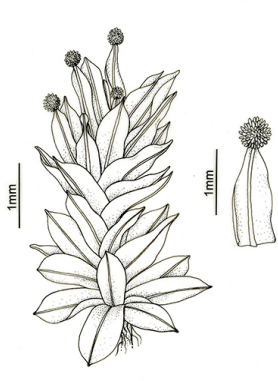

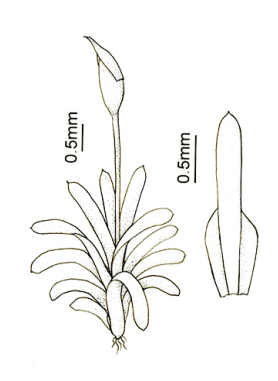


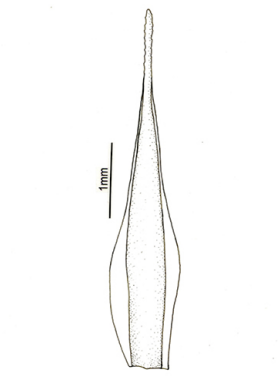

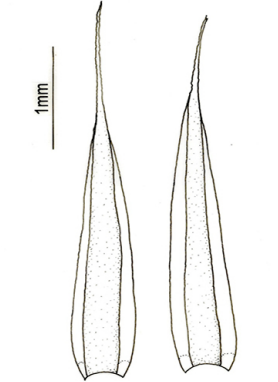
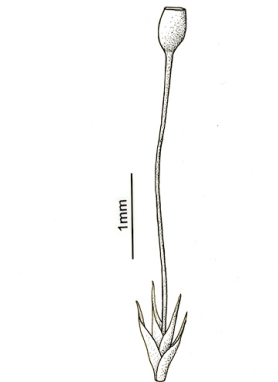
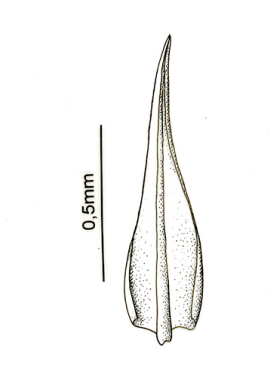
Denise Pinheiro da Costa & Maria Alice de Rezende

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

Photos and illustrations: Micheline Carvalho-Silva (landscapes), Maria Alice de Rezende (illustrations and species), and Jeff Ducket (species). Produced by Maria Alice de Rezende [malicerezende@yahoo.com.br] and Denise Pinheiro da Costa [denisepinheirodacosta@gmail.com], with the assistance from Juliana Philipp, and Valéria Sampaio, Field Museum. Support from: Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Natural History Museum of London, CNPq, and FAPERJ.

 © Field Museum (2021) CC BY-NC 4.0. Licensed works are free to use/share/remix with attribution, but commercial use of the original work is not permitted.

[fieldguides.fieldmuseum.org] [1406] version 1 1/2022

 <p>14 <i>Bryum argenteum</i> BRYACEAE</p>	 <p>15 <i>Bryum argenteum</i> BRYACEAE</p>	 <p>16 <i>Bryum cellulare</i> BRYACEAE</p>	 <p>17 <i>Bryum cellulare</i> BRYACEAE</p>	 <p>18 <i>Calymperes tenerum</i> CALYMPERACEAE</p>
 <p>19 <i>Calymperes tenerum</i> CALYMPERACEAE</p>	 <p>20 <i>Octoblepharum albidum</i> CALYMPERACEAE</p>	 <p>21 <i>Octoblepharum albidum</i> CALYMPERACEAE</p>	 <p>22 <i>Campylopus fragilis</i> DICRANACEAE</p>	 <p>23 <i>Campylopus fragilis</i> DICRANACEAE</p>
 <p>24 <i>Campylopus fragilis</i> DICRANACEAE</p>	 <p>25 <i>Campylopus pilifer</i> DICRANACEAE</p>	 <p>26 <i>Campylopus pilifer</i> DICRANACEAE</p>	 <p>27 <i>Leptotrichella lindigiana</i> DICRANACEAE</p>	 <p>28 <i>Leptotrichella lindigiana</i> DICRANACEAE</p>


Espírito Santo, Brazil

BRYOPHYTES of TRINDADE ISLAND

Denise Pinheiro da Costa & Maria Alice de Rezende

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

Photos and illustrations: Micheline Carvalho-Silva (landscapes), Maria Alice de Rezende (illustrations and species), and Jeff Ducket (species). Produced by Maria Alice de Rezende [malicerezende@yahoo.com.br] and Denise Pinheiro da Costa [denisepinheirodacosta@gmail.com], with the assistance from Juliana Philipp, and Valéria Sampaio, Field Museum. Support from: Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Natural History Museum of London, CNPq, and FAPERJ.

 © Field Museum (2021) CC BY-NC 4.0. Licensed works are free to use/share/remix with attribution, but commercial use of the original work is not permitted.

[fieldguides.fieldmuseum.org] [1406] version 1 1/2022



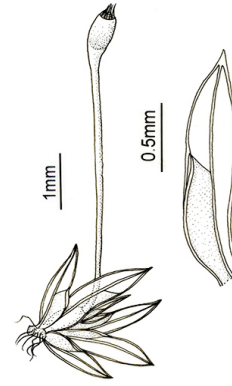
29 *Fissidens hornschuchii*
FISSIDENTACEAE



30 *Fissidens hornschuchii*
FISSIDENTACEAE



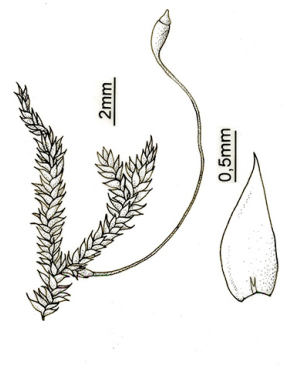
31 *Fissidens zollingeri*
FISSIDENTACEAE



32 *Fissidens zollingeri*
FISSIDENTACEAE



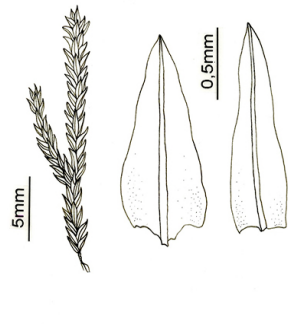
33 *Isopterygium tenerifolium*
HYPNACEAE



34 *Isopterygium tenerifolium*
HYPNACEAE



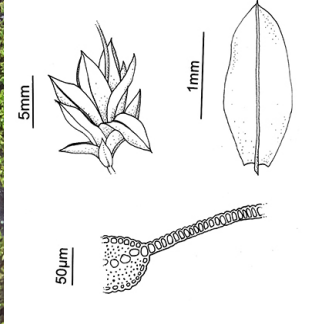
35 *Barbula indica*
POTTIACEAE



36 *Barbula indica*
POTTIACEAE



37 *Hyophila involuta*
POTTIACEAE



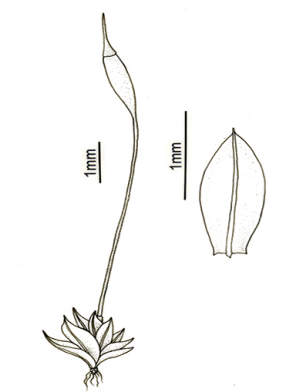
38 *Hyophila involuta*
POTTIACEAE



39 *Hyophiladelphus agrarius*
POTTIACEAE



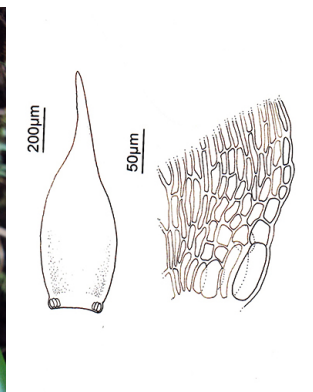
40 *Hyophiladelphus agrarius*
POTTIACEAE



41 *Hyophiladelphus agrarius*
POTTIACEAE



42 *Microcalpe subsimplex*
SEMATHOPHYLLACEAE



43 *Microcalpe subsimplex*
SEMATHOPHYLLACEAE


Espírito Santo, Brazil

BRYOPHYTES of TRINDADE ISLAND

Denise Pinheiro da Costa & Maria Alice de Rezende

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

Photos and illustrations: Micheline Carvalho-Silva (landscapes), Maria Alice de Rezende (illustrations and species), and Jeff Duckett (species). Produced by Maria Alice de Rezende [malicerezende@yahoo.com.br] and Denise Pinheiro da Costa [denisepinheirodacosta@gmail.com], with the assistance from Juliana Philipp, and Valéria Sampaio, Field Museum. Support from: Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Natural History Museum of London, CNPq, and FAPERJ.

 © Field Museum (2021) CC BY-NC 4.0. Licensed works are free to use/share/remix with attribution, but commercial use of the original work is not permitted.

[fieldguides.fieldmuseum.org] [1406] version 1 1/2022

Marchantiophyta



44 *Cephaloziella turneri*
CEPHALOZIELLACEAE



45 *Cephaloziella turneri*
CEPHALOZIELLACEAE



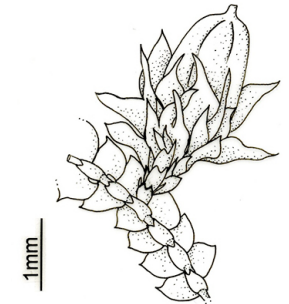
46 *Cephaloziella turneri*
CEPHALOZIELLACEAE



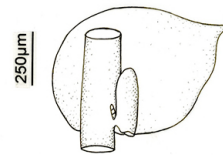
47 *Cephaloziella turneri*
CEPHALOZIELLACEAE



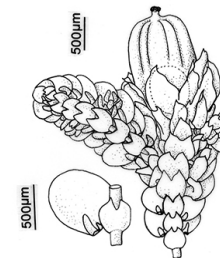
48 *Frullania beyrichiana*
FRULLANIACEAE



49 *Frullania beyrichiana*
FRULLANIACEAE



50 *Frullania beyrichiana*
FRULLANIACEAE



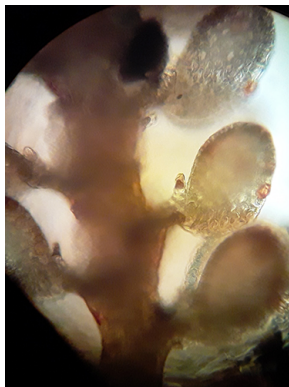
51 *Frullania caulisequa*
FRULLANIACEAE



52 *Frullania caulisequa*
FRULLANIACEAE



53 *Frullania caulisequa*
FRULLANIACEAE



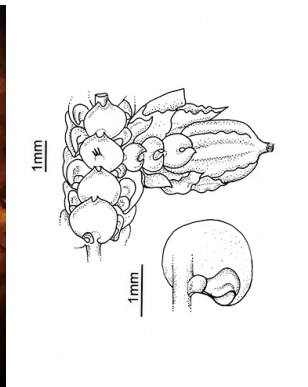
54 *Frullania caulisequa*
FRULLANIACEAE



55 *Frullania gibbosa*
FRULLANIACEAE



56 *Frullania gibbosa*
FRULLANIACEAE



57 *Frullania gibbosa*
FRULLANIACEAE

Espírito Santo, Brazil

BRYOPHYTES of TRINDADE ISLAND

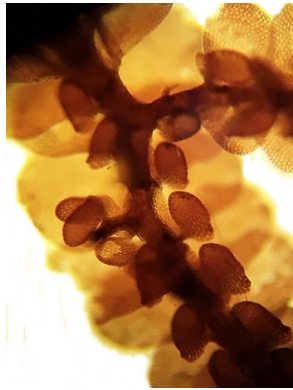
Denise Pinheiro da Costa & Maria Alice de Rezende

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

Photos and illustrations: Micheline Carvalho-Silva (landscapes), Maria Alice de Rezende (illustrations and species), and Jeff Duckett (species). Produced by Maria Alice de Rezende [malicerezende@yahoo.com.br] and Denise Pinheiro da Costa [denisepinheirodacosta@gmail.com], with the assistance from Juliana Philipp, and Valéria Sampaio, Field Museum. Support from: Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Natural History Museum of London, CNPq, and FAPERJ.

© Field Museum (2021) CC BY-NC 4.0. Licensed works are free to use/share/remix with attribution, but commercial use of the original work is not permitted.

[fieldguides.fieldmuseum.org] [1406] version 1 1/2022



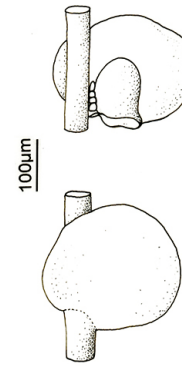
58 *Frullania kunzei*
FRULLANIACEAE



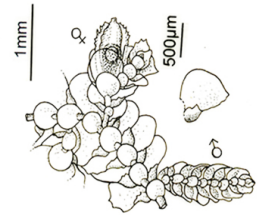
59 *Frullania kunzei*
FRULLANIACEAE



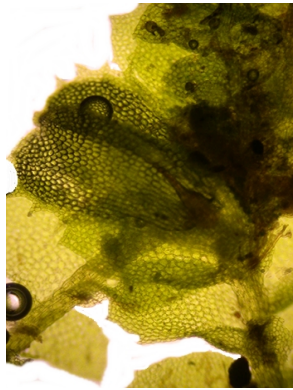
60 *Frullania kunzei*
FRULLANIACEAE



61 *Frullania kunzei*
FRULLANIACEAE



62 *Acanthocoleus aberrans*
LEJEUNEACEAE



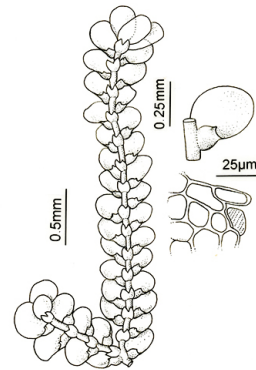
63 *Acanthocoleus aberrans*
LEJEUNEACEAE



64 *Cheilolejeunea rigidula*
LEJEUNEACEAE



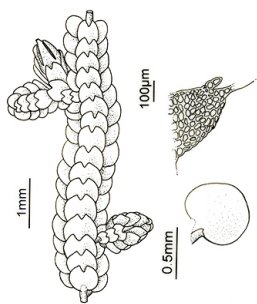
65 *Cheilolejeunea rigidula*
LEJEUNEACEAE



66 *Cheilolejeunea rigidula*
LEJEUNEACEAE



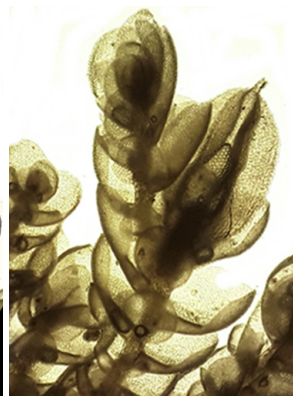
67 *Cheilolejeunea trifaria*
LEJEUNEACEAE



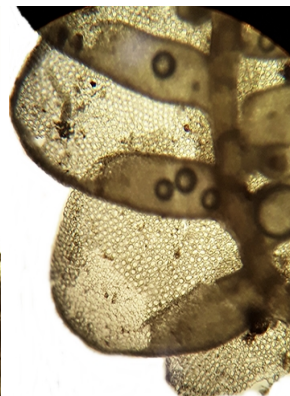
68 *Cheilolejeunea trifaria*
LEJEUNEACEAE



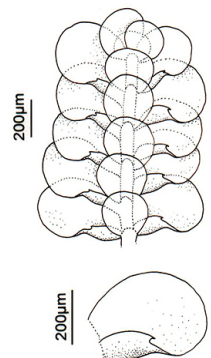
69 *Cheilolejeunea unciloba*
LEJEUNEACEAE



70 *Cheilolejeunea unciloba*
LEJEUNEACEAE



71 *Cheilolejeunea unciloba*
LEJEUNEACEAE



72 *Cheilolejeunea unciloba*
LEJEUNEACEAE


Espírito Santo, Brazil

BRYOPHYTES of TRINDADE ISLAND

Denise Pinheiro da Costa & Maria Alice de Rezende

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

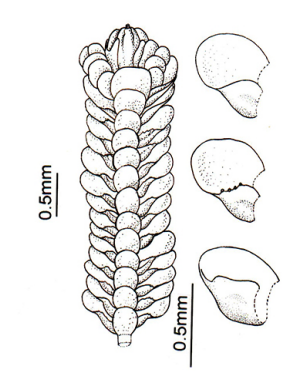
Photos and illustrations: Micheline Carvalho-Silva (landscapes), Maria Alice de Rezende (illustrations and species), and Jeff Duckett (species). Produced by Maria Alice de Rezende [malicerezende@yahoo.com.br] and Denise Pinheiro da Costa [denisepinheirodacosta@gmail.com], with the assistance from Juliana Philipp, and Valéria Sampaio, Field Museum. Support from: Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Natural History Museum of London, CNPq, and FAPERJ.

 © Field Museum (2021) CC BY-NC 4.0. Licensed works are free to use/share/remix with attribution, but commercial use of the original work is not permitted.

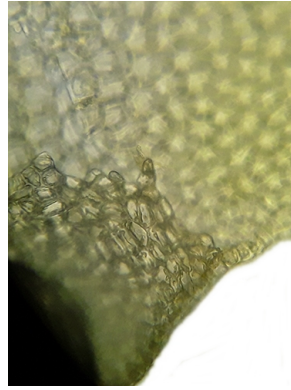
[fieldguides.fieldmuseum.org] [1406] version 1 1/2022



73 *Frullanoides corticalis*
LEJEUNEACEAE



74 *Frullanoides corticalis*
LEJEUNEACEAE



75 *Frullanoides corticalis*
LEJEUNEACEAE



76 *Lejeunea magnoliae*
LEJEUNEACEAE



77 *Lejeunea magnoliae*
LEJEUNEACEAE



78 *Lejeunea magnoliae*
LEJEUNEACEAE



79 *Lejeunea flava*
LEJEUNEACEAE



80 *Lejeunea flava*
LEJEUNEACEAE



81 *Lejeunea flava*
LEJEUNEACEAE



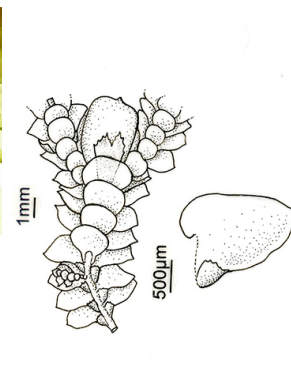
82 *Marchesinia brachiata*
LEJEUNEACEAE



83 *Marchesinia brachiata*
LEJEUNEACEAE



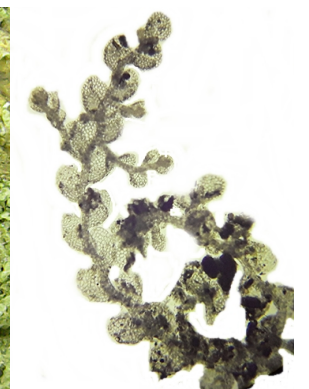
84 *Marchesinia brachiata*
LEJEUNEACEAE



85 *Marchesinia brachiata*
LEJEUNEACEAE



86 *Microlejeunea bullata*
LEJEUNEACEAE



87 *Microlejeunea bullata*
LEJEUNEACEAE


Espírito Santo, Brazil

BRYOPHYTES of TRINDADE ISLAND

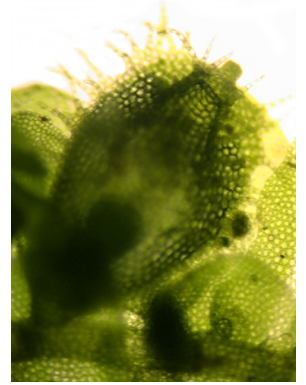
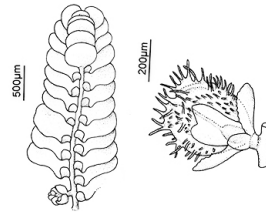
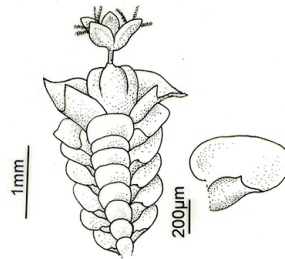
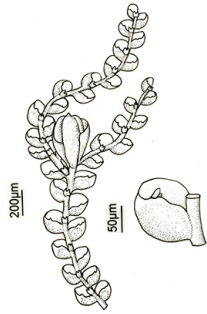
Denise Pinheiro da Costa & Maria Alice de Rezende

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

Photos and illustrations: Micheline Carvalho-Silva (landscapes), Maria Alice de Rezende (illustrations and species), and Jeff Duckett (species). Produced by Maria Alice de Rezende [malicerezende@yahoo.com.br] and Denise Pinheiro da Costa [denisepinheirodacosta@gmail.com], with the assistance from Juliana Philipp, and Valéria Sampaio, Field Museum. Support from: Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Natural History Museum of London, CNPq, and FAPERJ.

 © Field Museum (2021) CC BY-NC 4.0. Licensed works are free to use/share/remix with attribution, but commercial use of the original work is not permitted.

[fieldguides.fieldmuseum.org] [1406] version 1 1/2022



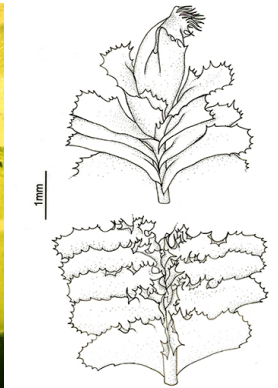
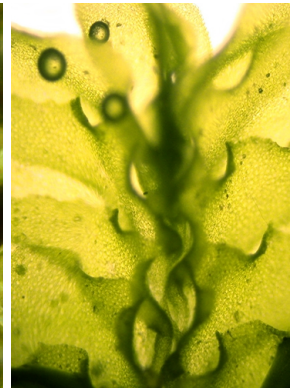
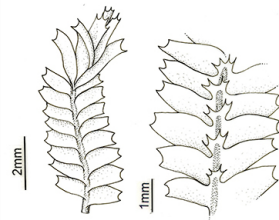
88 *Microlejeunea bullata*
LEJEUNEACEAE

89 *Schiffneriolejeunea polycarpa*
LEJEUNEACEAE

90 *Schiffneriolejeunea polycarpa*
LEJEUNEACEAE

91 *Symbiezidium barbiflorum*
LEJEUNEACEAE

92 *Symbiezidium barbiflorum*
LEJEUNEACEAE



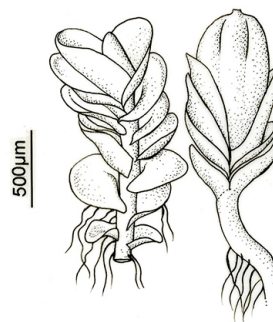
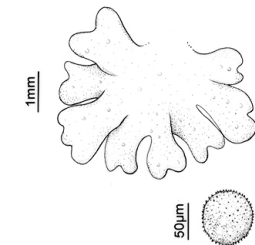
93 *Cryptolophocolea martiana*
LOPHOCOLEACEAE

94 *Cryptolophocolea martiana*
LOPHOCOLEACEAE

95 *Plagiochila corrugata*
PLAGIOCHILACEAE

96 *Plagiochila corrugata*
PLAGIOCHILACEAE

97 *Plagiochila corrugata*
PLAGIOCHILACEAE



98 *Riccia membranacea*
RICCIACEAE

99 *Riccia membranacea*
RICCIACEAE

100 *Solenostoma amoenum*
SOLENOSTOMATACEAE

101 *Solenostoma amoenum*
SOLENOSTOMATACEAE

102 *Solenostoma amoenum*
SOLENOSTOMATACEAE

Espírito Santo, Brazil

BRYOPHYTES of TRINDADE ISLAND

10

Denise Pinheiro da Costa & Maria Alice de Rezende

Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

Photos and illustrations: Micheline Carvalho-Silva (landscapes), Maria Alice de Rezende (illustrations and species), and Jeff Duckett (species). Produced by Maria Alice de Rezende [malicerezende@yahoo.com.br] and Denise Pinheiro da Costa [denisepinheirodacosta@gmail.com], with the assistance from Juliana Philipp, and Valéria Sampaio, Field Museum. Support from: Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Natural History Museum of London, CNPq, and FAPERJ.



© Field Museum (2021) CC BY-NC 4.0. Licensed works are free to use/share/remix with attribution, but commercial use of the original work is not permitted.

[fieldguides.fieldmuseum.org] [1406] version 1 1/2022



Landscapes of Trindade Island: (A) Giant Fern Forest of *Cyathea delgadii* Sternb. (hillside facing southeast), (B) inside the forest.