

## Chemotaxonomic studies on some *Stereocaulon* (Stereocaulaceae, lichenized Ascomycota) from Southern South America and Antarctica

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**Table 1S** – Specimens of lichens analyzed, collection sites, species and chemical composition.

| Specimen voucher     | Geographical origin   | Geographic coordinates      | Species              | Chemical composition                                                   |
|----------------------|-----------------------|-----------------------------|----------------------|------------------------------------------------------------------------|
| A.A. Spielmann 12532 | Santa Cruz, Argentina | 49°4'47.83"S, 72°53'15.35"W | <i>S. corticatum</i> | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids. |
| A.A. Spielmann 12535 | Santa Cruz, Argentina | 49°4'47.83"S, 72°53'15.35"W | <i>S. tomentosum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids. |
| A.A. Spielmann 12537 | Santa Cruz, Argentina | 49°4'47.83"S, 72°53'15.35"W | <i>S. tomentosum</i> | Atranorin, stictic and hypoconstictic acids.                           |
| A.A. Spielmann 12539 | Santa Cruz, Argentina | 49°4'47.83"S, 72°53'15.35"W | <i>S. corticatum</i> | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids. |
| A.A. Spielmann 12847 | Santa Cruz, Argentina | 49°4'47.83"S, 72°53'15.35"W | <i>S. corticatum</i> | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids. |
| M.J. Kitaura 4207    | Santa Cruz, Argentina | 49°4'21"S, 72°53'27"W       | <i>S. corticatum</i> | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids. |

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| M.J. Kitaura 4211    | Santa Cruz, Argentina                      | 49°4'21"S, 72°53'27"W        | <i>S. corticatum</i>      | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids.                                                                                                                                           |
| M. J. Kitaura 4213   | Santa Cruz, Argentina                      | 49°4'20.74"S, 72°53'27.32"W  | <i>S. glabrum</i>         | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4221    | Santa Cruz, Argentina                      | 49°4'21"S, 72°53'27"W        | <i>S. corticatum</i>      | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids.                                                                                                                                           |
| M.J. Kitaura 4228    | Santa Cruz, Argentina                      | 49°4'20.74"S, 72°53'27.32"W  | <i>S. implexum</i>        | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| A.A. Spielmann 12538 | Patagonia, Argentina                       | 51°6'54.68"S, 73°6'51.79"W   | <i>S. tomentosum</i>      | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| A.A. Spielmann 12545 | Patagonia, Argentina                       | 51°6'39.61"S, 73°6'4.90"W    | <i>S. glabrum</i>         | Atranorin, stictic and norstictic acids.                                                                                                                                                                         |
| M.J. Kitaura 3330    | National Park, Tierra del Fuego, Argentina | 54°50'34.44"S, 68°34'05.52"W | <i>S. tomentosum</i>      | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 3331    | National Park, Tierra del Fuego, Argentina | 54°50'34.44"S, 68°34'05.52"W | <i>S. tomentosum</i>      | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 3332    | National Park, Tierra del Fuego, Argentina | 54°50'34.44"S, 68°34'05.52"W | <i>S. tomentosum</i>      | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 3333    | National Park, Tierra del Fuego, Argentina | 54°50'34.44"S, 68°34'05.52"W | <i>S. tomentosum</i>      | Atranorin, stictic, menegazziaic and norstictic acids.                                                                                                                                                           |
| M.J. Kitaura 3336    | National Park, Tierra del Fuego, Argentina | 54°50'34.44"S, 68°34'05.52"W | <i>S. glabrum</i>         | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 3337    | National Park, Tierra del Fuego, Argentina | 54°50'34.44"S, 68°34'05.52"W | <i>S. melanopotamicum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |

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| M.J. Kitaura 3377 | National Park, Tierra del Fuego, Argentina | 54°49'47.84"S, 68°28'53.87"W | <i>S. tomentosum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 3383 | National Park, Tierra del Fuego, Argentina | 54°49'52.59"S, 68°29'22.48"W | <i>S. tomentosum</i> | Atranorin, stictic and norstictic acids.                                                                                                                                                                         |
| M.J. Kitaura 3390 | National Park, Tierra del Fuego, Argentina | 54°49'59.81"S, 68°29'58.68"W | <i>S. tomentosum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4005 | National Park, Tierra del Fuego, Argentina | 54°51'19.26"S, 68°34'54.49"W | <i>S. tomentosum</i> | Atranorin, stictic, menegazziaic and norstictic acids.                                                                                                                                                           |
| M.J. Kitaura 4006 | National Park, Tierra del Fuego, Argentina | 54°51'19.26"S, 68°34'54.49"W | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4007 | National Park, Tierra del Fuego, Argentina | 54°51'19.26"S, 68°34'54.49"W | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4008 | National Park, Tierra del Fuego, Argentina | 54°51'19.26"S, 68°34'54.49"W | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4009 | National Park, Tierra del Fuego, Argentina | 54°51'19.26"S, 68°34'54.49"W | <i>S. tomentosum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4011 | National Park, Tierra del Fuego, Argentina | 54°49'02.69"S, 68°30'37.71"W | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4015 | National Park, Tierra del Fuego, Argentina | 54°49'02.69"S, 68°30'37.71"W | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4038 | National Park, Tierra del Fuego, Argentina | 54°49'02.69"S, 68°30'37.71"W | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic and norstictic acids.                                                                                                                                                           |
| M.J. Kitaura 4069 | National Park, Tierra del Fuego, Argentina | 54°49'08.52"S, 68°30'35.04"W | <i>S. alpinum</i>    | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| M.J.Kitaura 4108  | National Park, Tierra del Fuego, Argentina | 54°51'1"S, 68°32'26"W        | <i>S. corticatum</i> | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids.                                                                                                                                           |

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| M.J. Kitaura 4109 | National Park, Tierra del Fuego, Argentina | 54°51'1"S, 68°32'26"W        | <i>S. corticatum</i>                          | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids.                                                                                                                                           |
| M.J. Kitaura 4110 | National Park, Tierra del Fuego, Argentina | 54°51'1"S, 68°32'26"W        | <i>S. corticatum</i>                          | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids.                                                                                                                                           |
| M.J. Kitaura 4116 | National Park, Tierra del Fuego, Argentina | 54°51'28.53"S, 68°30'23.83"W | <i>S. tomentosum</i><br><i>var. capitatum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4117 | National Park, Tierra del Fuego, Argentina | 54°51'28.53"S, 68°30'23.83"W | <i>S. tomentosum</i><br><i>var. capitatum</i> | Atranorin, stictic menegazziaic and norstictic acids.                                                                                                                                                            |
| M.J. Kitaura 4121 | National Park, Tierra del Fuego, Argentina | 54°51'29"S, 68°30'24"W       | <i>S. corticatum</i>                          | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids.                                                                                                                                           |
| M.J. Kitaura 4123 | National Park, Tierra del Fuego, Argentina | 54°51'28.53"S, 68°30'23.83"W | <i>S. tomentosum</i>                          | Atranorin, stictic, menegazziaic and norstictic acids.                                                                                                                                                           |
| M.J. Kitaura 4124 | National Park, Tierra del Fuego, Argentina | 54°51'28.53"S, 68°30'23.83"W | <i>S. tomentosum</i>                          | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4130 | National Park, Tierra del Fuego, Argentina | 54°51'28.53"S, 68°30'23.83"W | <i>S. tomentosum</i>                          | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4155 | National Park, Tierra del Fuego, Argentina | 54°48'20.46"S, 68°33'21.16"W | <i>S. glabrum</i>                             | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4166 | National Park, Tierra del Fuego, Argentina | 54°50'41.42"S, 68°33'52.31"W | <i>S. melanopotamicum</i>                     | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| M.J. Kitaura 4182 | National Park, Tierra del Fuego, Argentina | 54°50'41.42"S, 68°33'52.31"W | <i>S. tomentosum</i>                          | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4189 | National Park, Tierra del Fuego, Argentina | 54°50'41.42"S, 68°33'52.31"W | <i>S. tomentosum</i>                          | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4193 | National Park, Tierra del Fuego, Argentina | 54°48'20.46"S, 68°33'21.16"W | <i>S. glabrum</i>                             | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| M.J. Kitaura 4198 | National Park, Tierra del Fuego, Argentina | 54°48'20.46"S, 68°33'21.16"W | <i>S. glabrum</i>                             | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |

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| A.A. Spielmann 12534 | National Park, Tierra del Fuego, Chile | 54°50'35.47"S, 68°34'2.07"W  | <i>S. tomentosum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                         |
| A.A. Spielmann 12540 | National Park, Tierra del Fuego, Chile | 54°48'35.24"S, 68°27'19.83"W | <i>S. tomentosum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                         |
| A.A. Spielmann 12541 | National Park, Tierra del Fuego, Chile | 54°48'43.10"S, 68°32'23.40"W | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic and norstictic acids.                                                                                                                                                         |
| A.A. Spielmann 12543 | National Park, Tierra del Fuego, Chile | 54°49'47.54"S, 68°28'53.86"W | <i>S. tomentosum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                         |
| A.A. Spielmann 12637 | National Park, Tierra del Fuego, Chile | 54°49'47.54"S, 68°28'53.86"W | <i>S. tomentosum</i> | Atranorin, stictic, menegazziaic and norstictic acids.                                                                                                                                                         |
| A.A. Spielmann 12664 | National Park, Tierra del Fuego, Chile | 54°49'8.27"S, 68°30'36.22"W  | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                         |
| A.A. Spielmann 12672 | National Park, Tierra del Fuego, Chile | 54°48'25.88"S, 68°32'55.49"W | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                         |
| A.A. Spielmann 12673 | National Park, Tierra del Fuego, Chile | 54°50'39.89"S, 68°33'54.99"W | <i>S. tomentosum</i> | Atranorin, stictic and norstictic acids.                                                                                                                                                                       |
| A.A. Spielmann 12687 | National Park, Tierra del Fuego, Chile | 54°48'25.88"S, 68°32'55.49"W | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                         |
| A.A. Spielmann 12544 | Patagonia, Chile                       | 51°06'54.8"S, 73°06'51.79"W  | <i>S. corticatum</i> | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids.                                                                                                                                         |
| M.J. Kitaura 4236    | Patagonia, Chile                       | 51°06'39.78"S, 73°06'43.95"W | <i>S. glabrum</i>    | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                         |
| M.J. Kitaura 4237    | Patagonia, Chile                       | 51°06'40"S, 73°06'44"W       | <i>S. corticatum</i> | Atranorin, rangiformic, norrangiformic and pseudonorrangiformic acids.                                                                                                                                         |
| M.J. Kitaura 4238    | Patagonia, Chile                       | 51°06'39.78"S, 73°06'43.95"W | <i>S. implexum</i>   | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene"- glomelliferic acid, ene"- lobaric acid. |
| M.J. Kitaura 4249    | Patagonia, Chile                       | 51°06'39.78"S, 73°06'43.95"W | <i>S. tomentosum</i> | Atranorin, stictic, menegazziaic and norstictic acids.                                                                                                                                                         |

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| M.J. Kitaura 4253   | Patagonia, Chile                          | 51°06'39.78"S, 73°06'43.95"W | <i>S. glabrum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| A.A. Spielmann 3419 | Livingston Island, South Shetland Islands | 62°40'18.7"S, 61°06'18.1"W   | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| A.A. Spielmann 3523 | Livingston Island, South Shetland Islands | 62°40'19.3"S, 61°06'23.9"W   | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| A.A. Spielmann 3564 | Livingston Island, South Shetland Islands | 62°38'12.7"S, 61°05'04.5"W   | <i>S. glabrum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| A.A. Spielmann 3602 | Livingston Island, South Shetland Islands | 62°40'19.3"S, 61°06'23.9"W   | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| A.A. Spielmann 3722 | Livingston Island, South Shetland Islands | 62°40'19.3"S, 61°06'23.9"W   | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| A.A. Spielmann 3878 | Livingston Island, South Shetland Islands | 62°40'23.9"S, 61°06'44.2"W   | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |

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| A.A. Spielmann 3933 | Livingston Island, South Shetland Islands  | 62°40'20.6"S, 61°06'28.9"W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| A.A. Spielmann 4019 | Livingston Island, South Shetland Islands  | 62°40'16.6"S, 61°06'20.8"W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| A.A. Spielmann 4040 | Livingston Island, South Shetland Islands  | 62°40'16.6"S, 61°06'20.8"W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| A.A. Spielmann 4664 | Livingston Island, South Shetland Islands  | 62°40'20.6"S, 61°06'28.9"W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| A.P. Lorenz 270     | Livingston Island, South Shetland Islands  | 62°41'09.6"S, 60°51'38.5"W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| A.A. Spielmann 488  | King George Island, South Shetland Islands | 62°04'40.5"S, 58°25'25.5"W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |

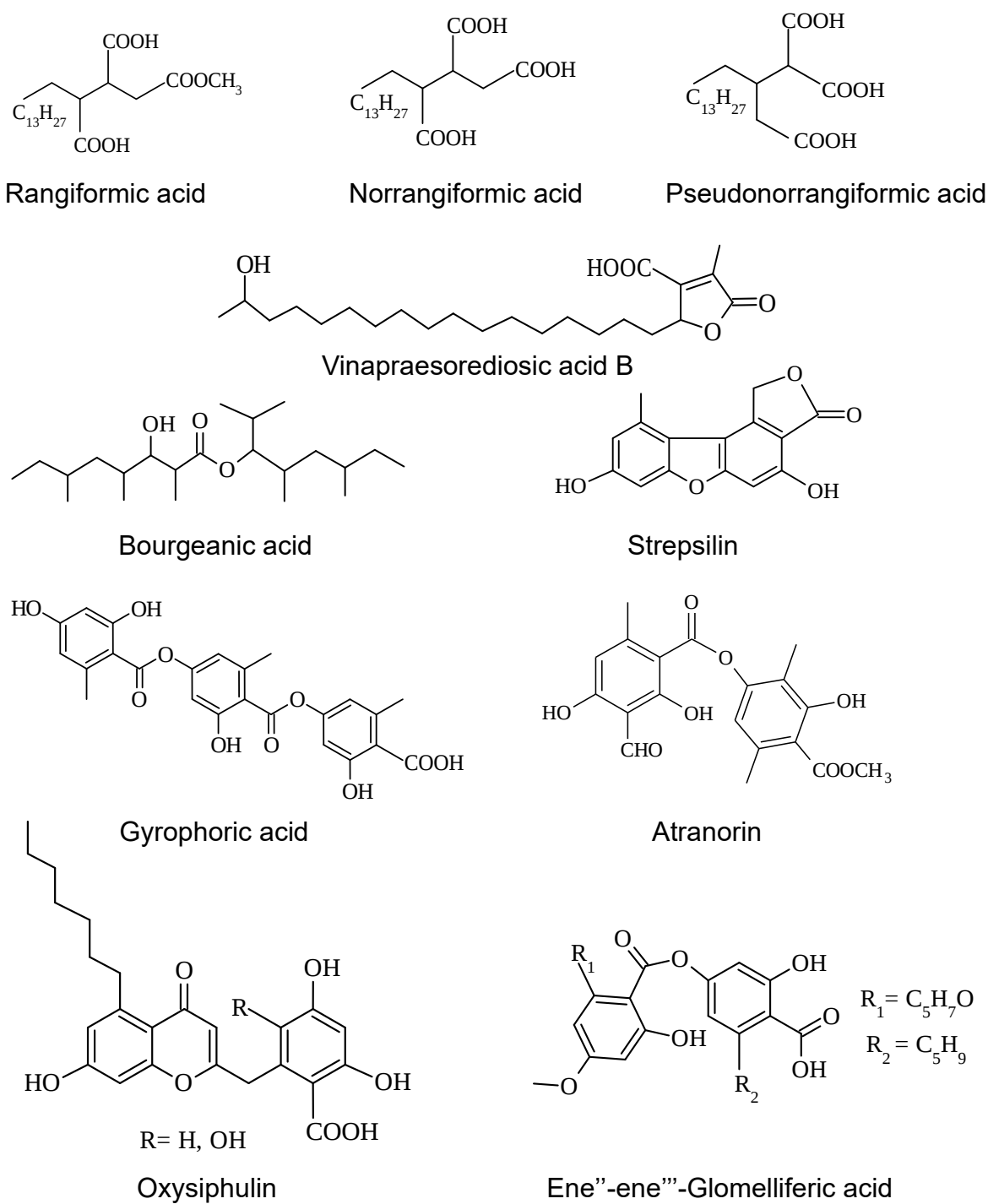
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|----------------------|-----------------------------------------------|-----------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A.A. Spielmann 5178  | King George Island,<br>South Shetland Islands | 62°10'45.2"S, 58°26'54.1"W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| A.A. Spielmann 7313  | King George Island,<br>South Shetland Islands | 62°14'47.3"S, 58°40'41.1"W  | <i>S. glabrum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                           |
| A.A. Spielmann 7388  | King George Island,<br>South Shetland Islands | 62°15'29.5"S, 58°36'51.6"W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| A.A. Spielmann 7405  | King George Island,<br>South Shetland Islands | 62°15'29.5"S, 58°36'51.6"W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| A.A. Spielmann 12178 | King George Island,<br>South Shetland Islands | 62°10'45.2"S, 58°26'54.1"W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| C. Bernardo 500      | King George Island,<br>South Shetland Islands | 62°7'17.58"S, 58°23'39.06"W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" – ene""- glomelliferic acid, ene""- lobaric acid. |
| C. Bernardo 502      | King George Island,<br>South Shetland Islands | 62°7'17.58"S, 58°23'39.06"W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2"-ene lobaric, 3"-ene lobaric and 4"-ene lobaric acids, ene" –                                                 |

|                      |                                            |                              |                   |                                                                                                                                                                                                                                                               |
|----------------------|--------------------------------------------|------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                      |                                            |                              |                   | ene'''- glomelliferic acid, ene'''- lobaric acid.                                                                                                                                                                                                             |
| C. Bernardo 503      | King George Island, South Shetland Islands | 62°4'18.42"S, 58°22'27.30"W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid.                                        |
| C. Bernardo 504      | King George Island, South Shetland Islands | 62°7'17.58"S, 58°23'39.06"W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid.                                        |
| M.J. Kitaura 2279    | King George Island, South Shetland Islands | 62°13'55"S, 58°46'40"W       | <i>S. glabrum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                                                                        |
| A.A. Spielmann 9200  | Deception Island, South Shetland Islands   | 62°59'18.56"S, 60°40'0.06"W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid.                                        |
| A.A. Spielmann 13483 | Deception Island, South Shetland Islands   | 62°59'10.50"S, 60°39'55.95"W | <i>S. glabrum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                                                                        |
| A.P. Lorenz 767      | Nelson Island, South Shetland Islands      | 62°14'26.8"S, 58°58'45.8"W   | <i>S. alpinum</i> | Atranorin, lobaric acid, strepsilin, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid, vinapraesorediosic acid B. |
| A.P. Lorenz 760      | Nelson Island, South Shetland Islands      | 62°14'26.8"S, 58°58'45.8"W   | <i>S. glabrum</i> | Atranorin, stictic, menegazziaic, norstictic and hypoconstictic acids.                                                                                                                                                                                        |
| A.P. Lorenz 791      | Nelson Island, South Shetland Islands      | 62°14'26.8"S, 58°58'45.8"W   | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene                                                                                                                                     |

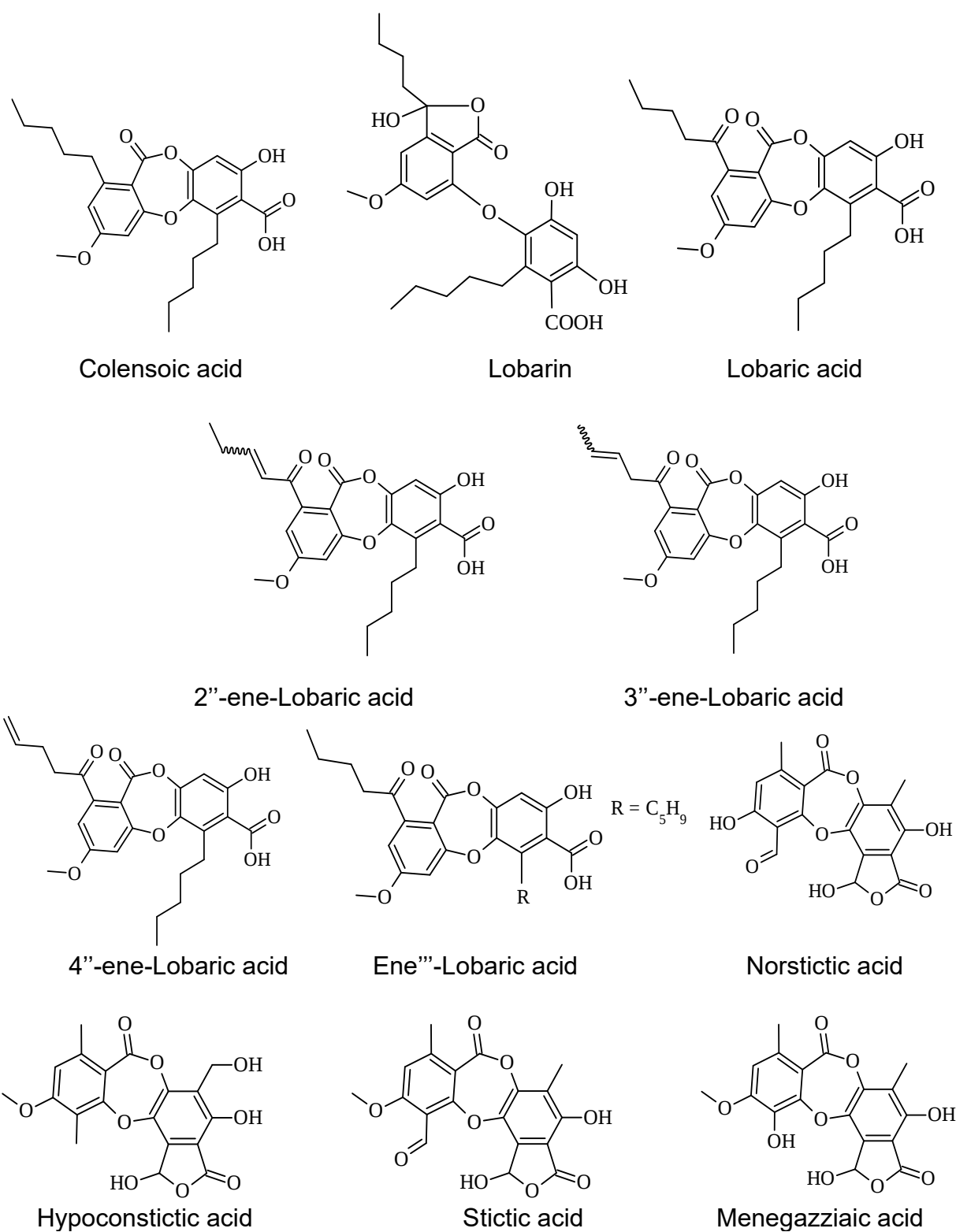
|                   |                                       |                               |                   |                                                                                                                                                                                                                        |
|-------------------|---------------------------------------|-------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                                       |                               |                   | lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid.                                                                                                                           |
| N.M. Koch 5172    | Robert Island, South Shetland Islands | 62°27'36.2''S, 59°30'32.0''W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| T.D. Barbosa 615  | Robert Island, South Shetland Islands | 62°27'36.2''S, 59°30'32.0''W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| Diogo 153         | Ardley Island, South Shetland Islands | 62°12'49.5''S, 58°56'22.3''W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| Diogo 166         | Ardley Island, South Shetland Islands | 62°12'49.5''S, 58°56'22.3''W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| T.D. Barbosa 407  | South Shetland Islands                | 62°7'12.78''S, 58°23'42.00''W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| T. D. Barbosa 423 | South Shetland Islands                | 62°7'12.78''S, 58°23'42.00''W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene                                                                                              |

|                  |                        |                                |                   |                                                                                                                                                                                                                        |
|------------------|------------------------|--------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |                        |                                |                   | lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid.                                                                                                                           |
| T.D. Barbosa 462 | South Shetland Islands | 62°7'12.78''S, 58°23'42.00''W  | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| T.D. Barbosa 584 | South Shetland Islands | 62°05'03.7''S, 57°56'59.9''W   | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| T.D. Barbosa 609 | South Shetland Islands | 62°26'40.25''S, 59°43'43.30''W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| T.D. Barbosa 611 | South Shetland Islands | 62°18'22.3''S, 59°11'55.3''W   | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| T.D. Barbosa 612 | South Shetland Islands | 62°18'22.3''S, 59°11'55.3''W   | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |
| T.D. Barbosa 613 | South Shetland Islands | 62°18'22.3''S, 59°11'55.3''W   | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene                                                                                              |

|                  |                        |                            |                   |                                                                                                                                                                                                                        |
|------------------|------------------------|----------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |                        |                            |                   | lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid.                                                                                                                           |
| T.D. Barbosa 614 | South Shetland Islands | 62°18'22.3"S, 59°11'55.3"W | <i>S. alpinum</i> | Atranorin, lobaric acid, lobarin, gyrophoric acid, oxysiphulin, bourgeanic acid, colensoic acid, 2''-ene lobaric, 3''-ene lobaric and 4''-ene lobaric acids, ene'' – ene'''- glomelliferic acid, ene'''- lobaric acid. |

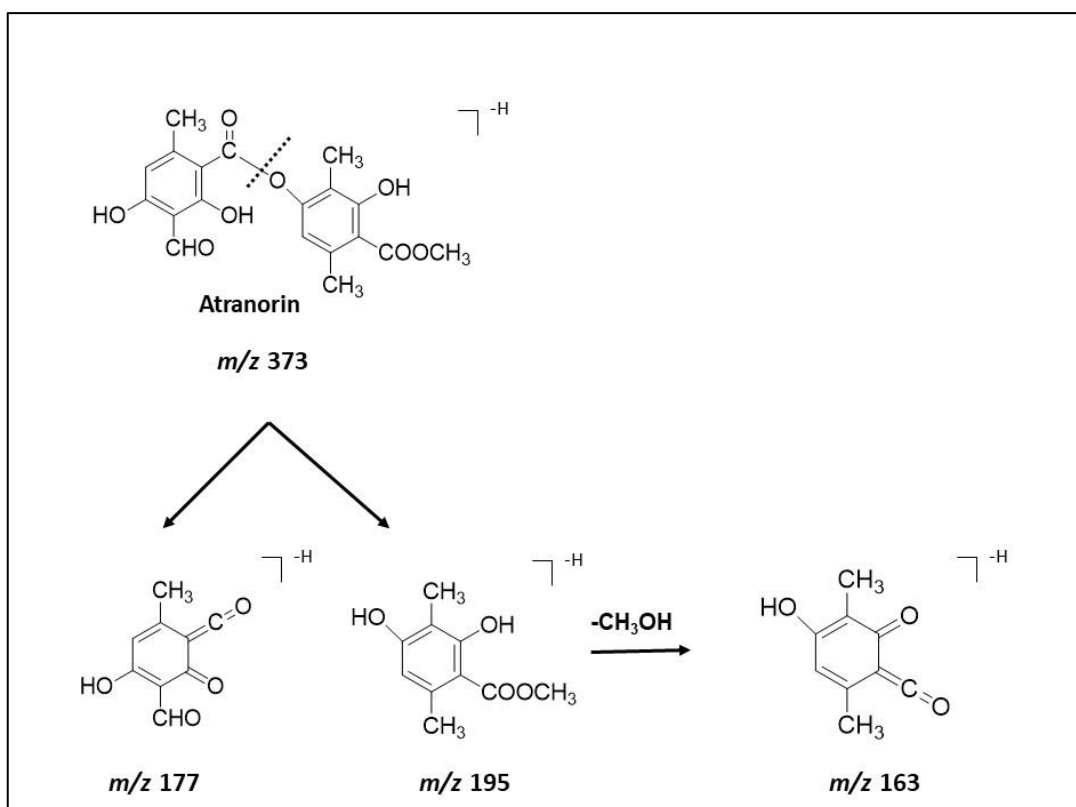


**Fig. 1Sa** – Chemical structures of the compounds of the classes of fatty acids, dibenzofuran, chromone and depsides putatively identified in the *Stereocaulon* spp.

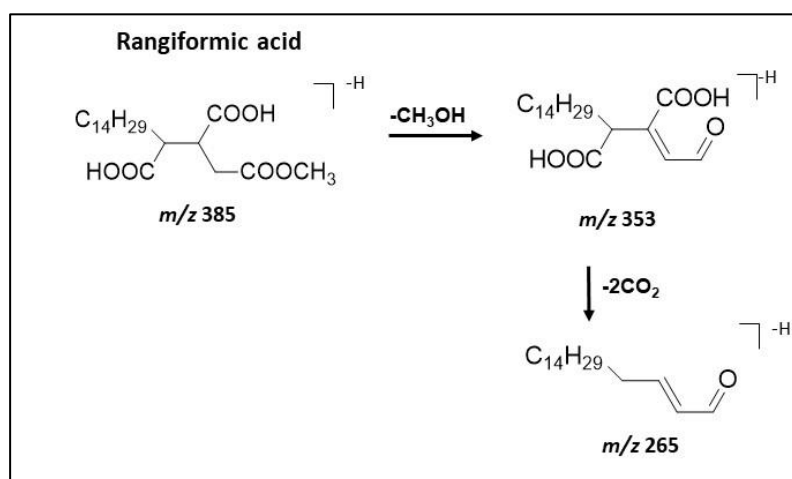


**Fig. 1Sb** – Chemical structures of the compounds of the classes of diphenylether and depsidones putatively identified in the *Stereocaulon* spp.

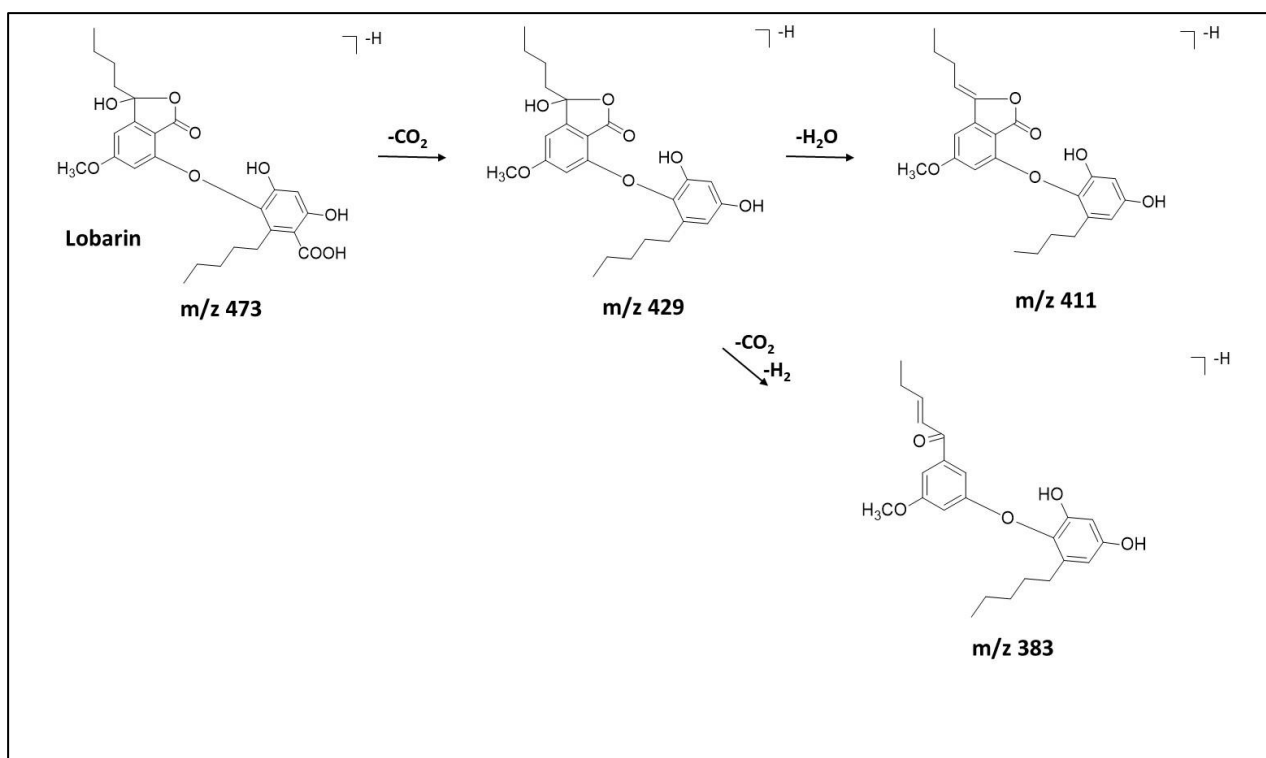




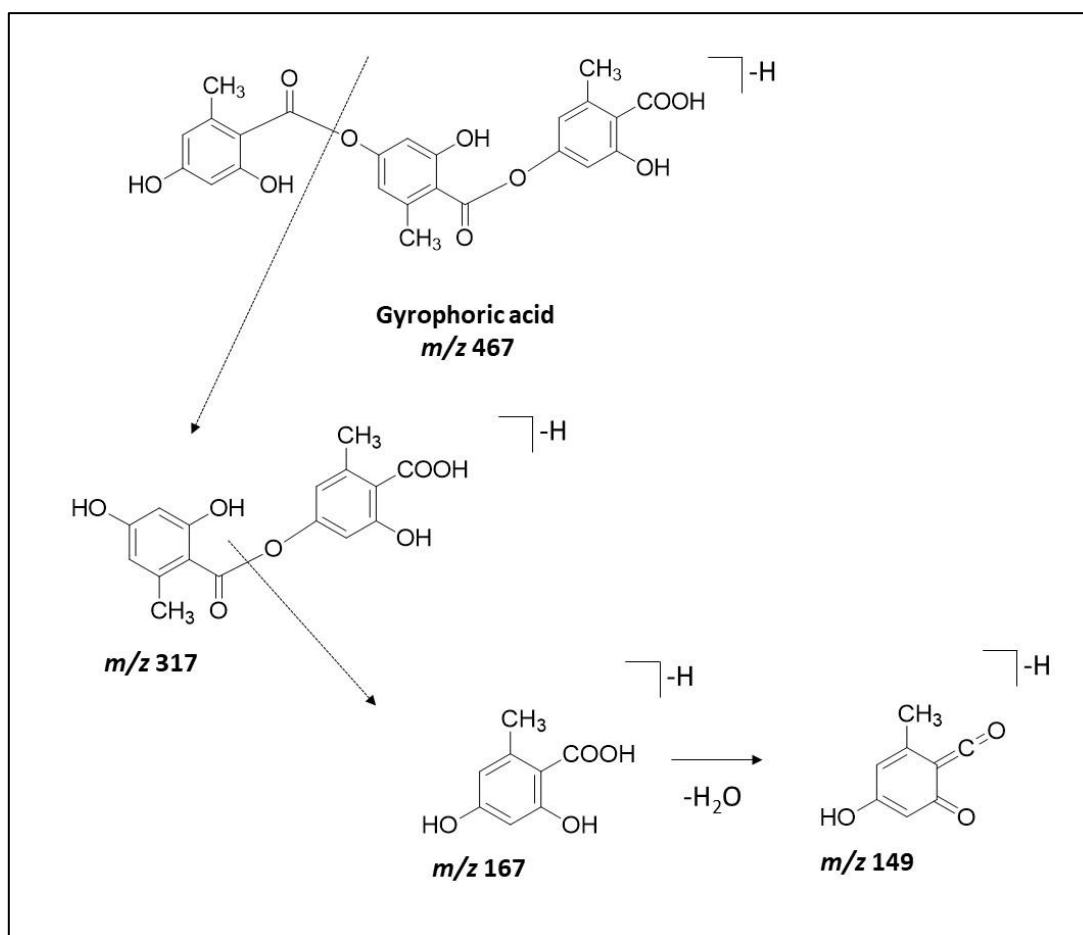
**Fig. 4S** – Fragmentation of atranorin [27,29].



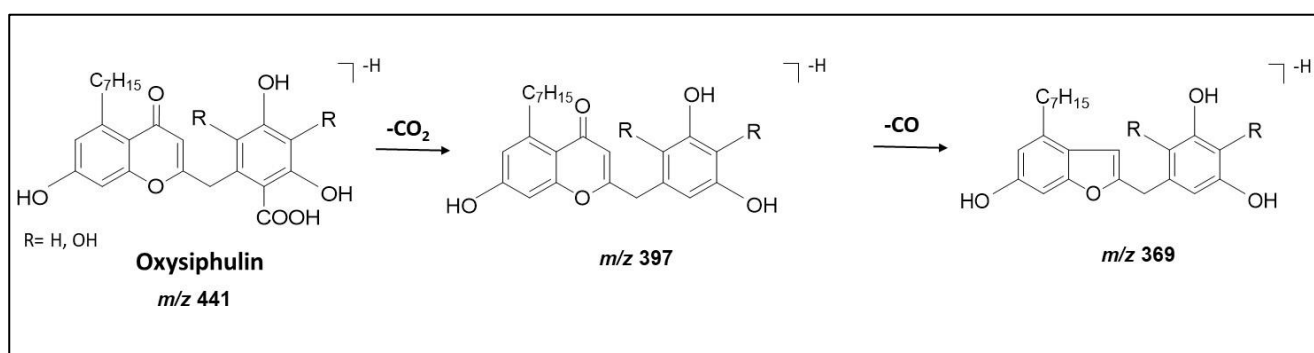
**Fig. 5S** - Fragmentation proposal for rangiformic acid [32].



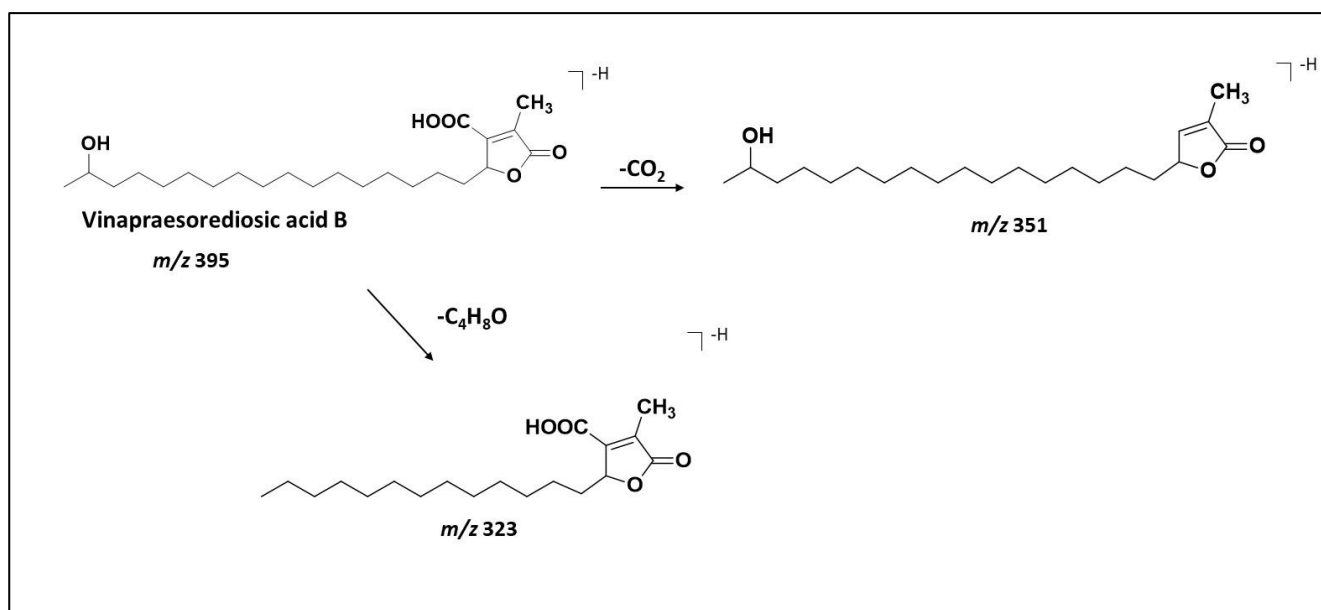
**Fig. 6S** – Fragmentation proposal for lobarin.



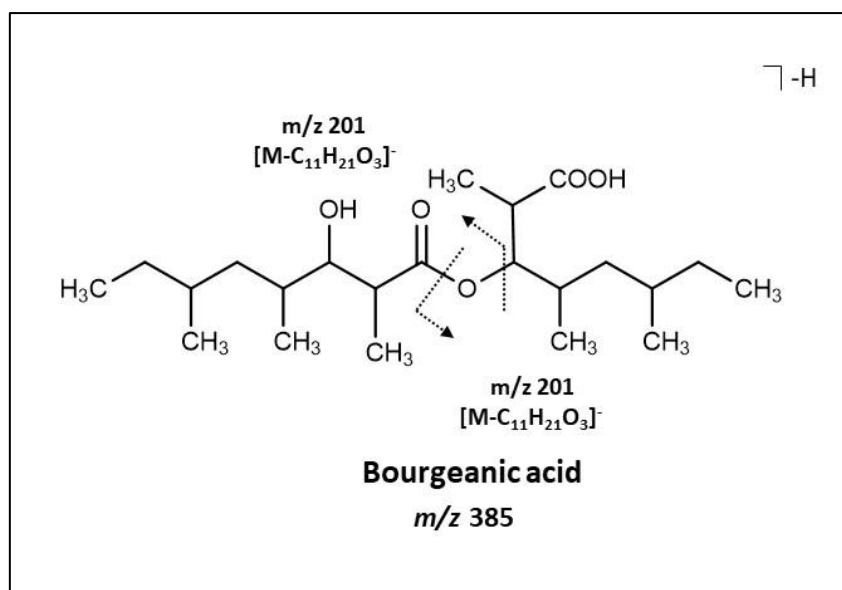
**Fig. 7S** – Fragmentation of gyrophoric acid [25].



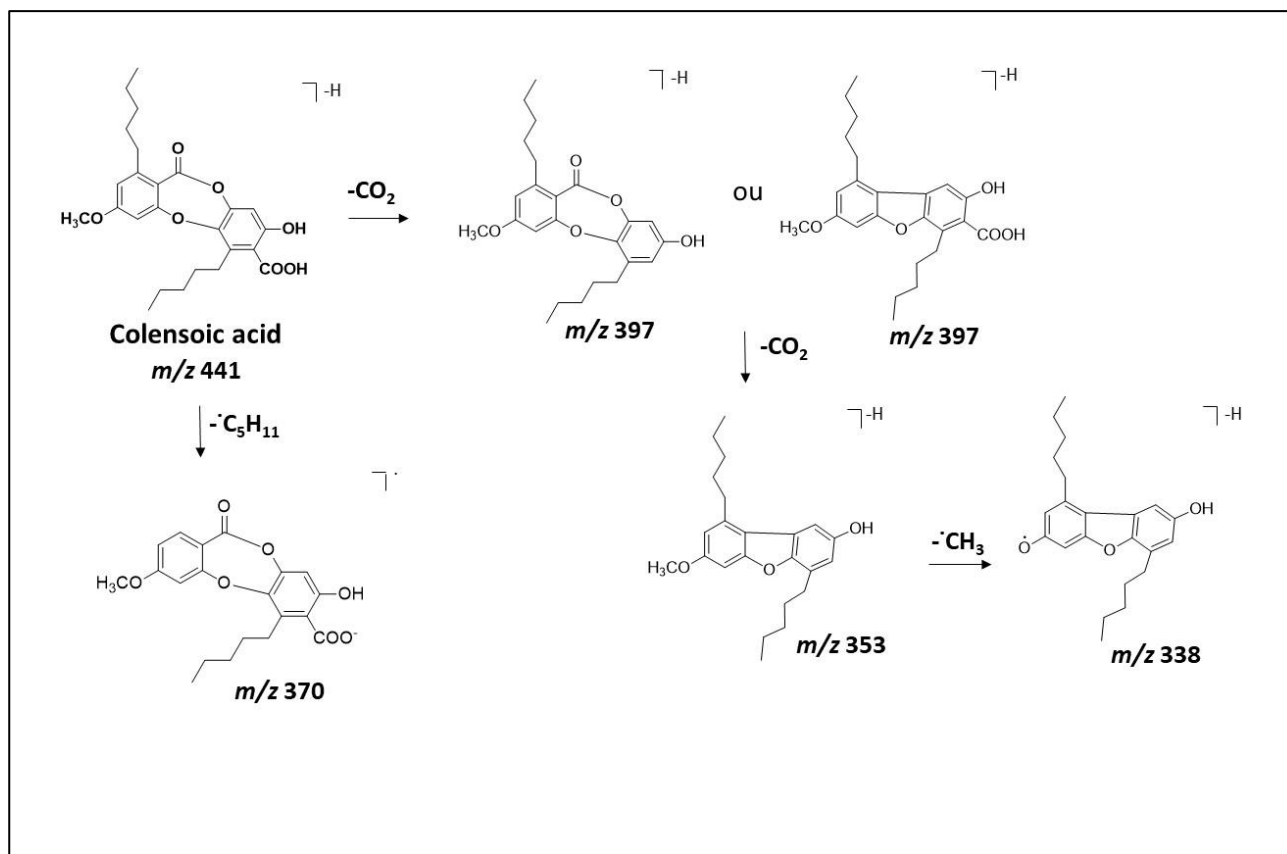
**Fig. 8S** – Fragmentation proposal for oxysiphulins.



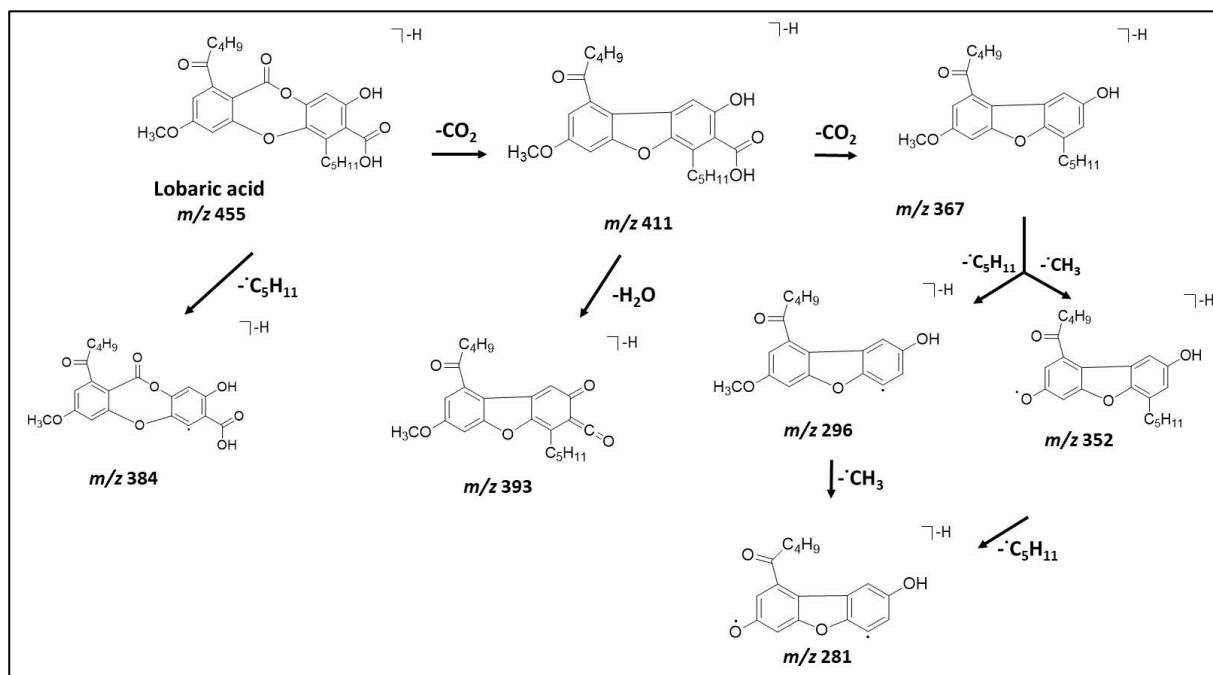
**Fig. 9S** – Fragmentation proposal for vinapraesorediosic acid B.



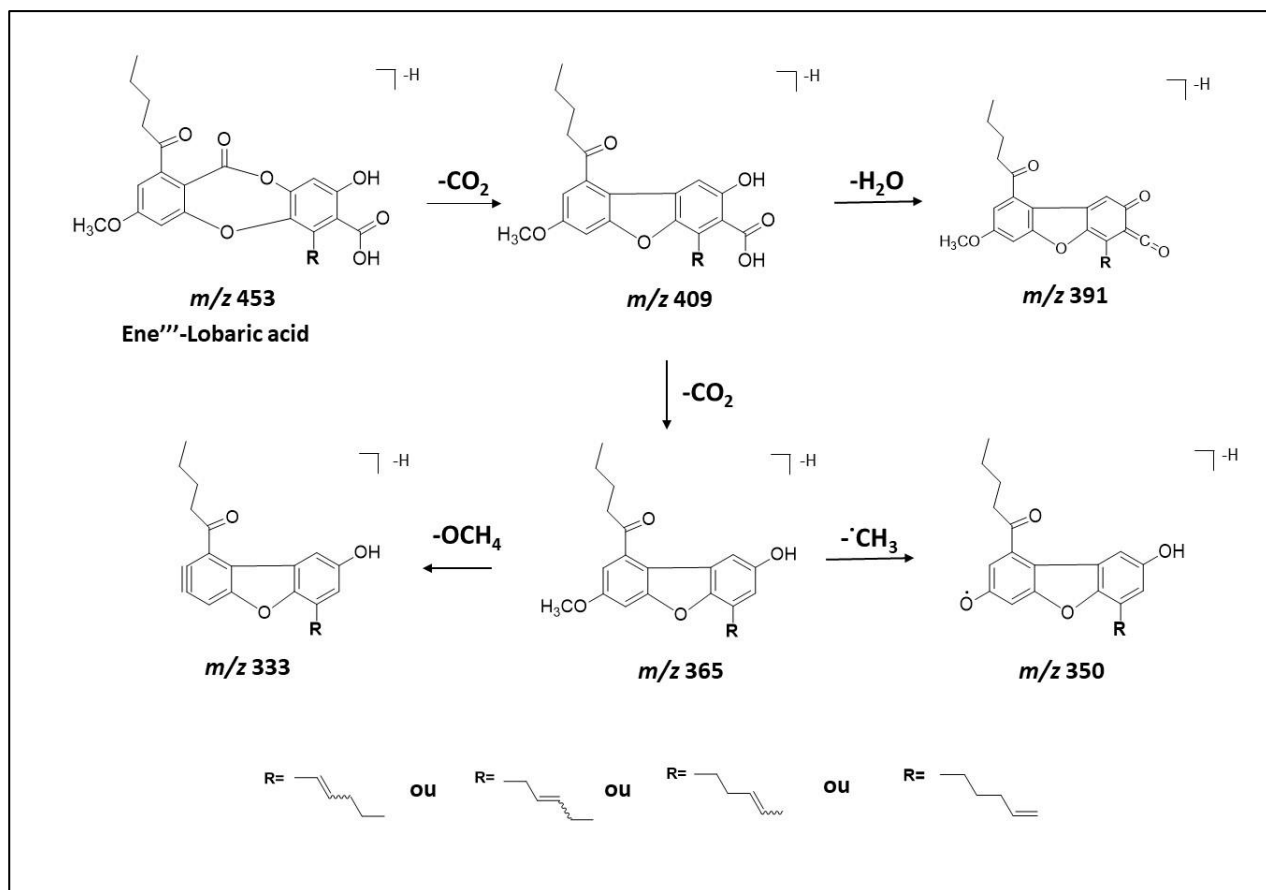
**Fig. 10S** – Fragmentation proposal for bourgeanic acid



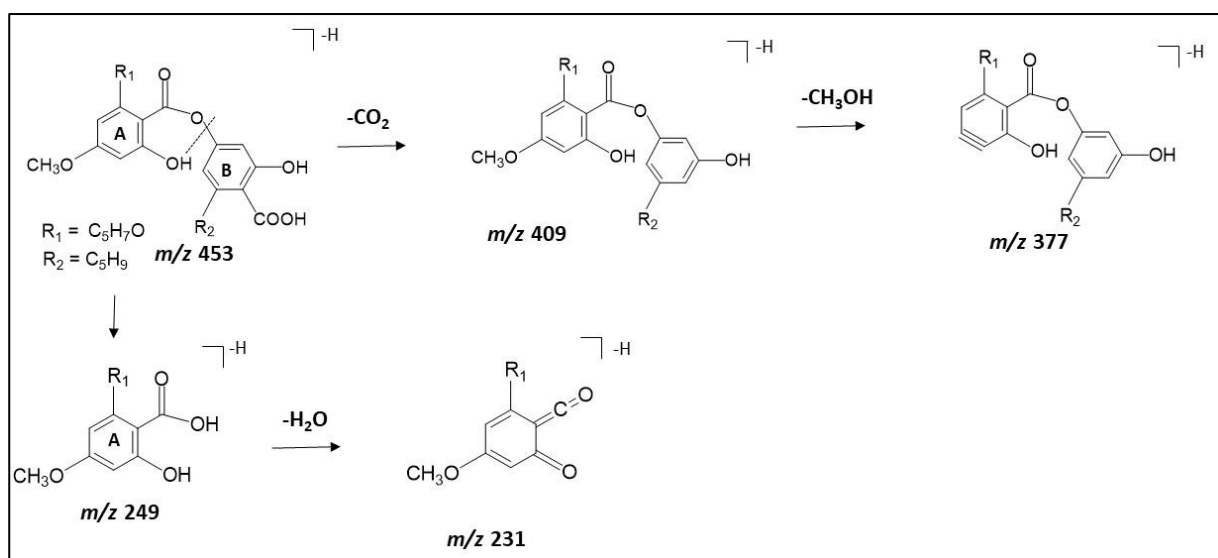
**Fig. 11S** – Fragmentation proposal for colensoic acid.



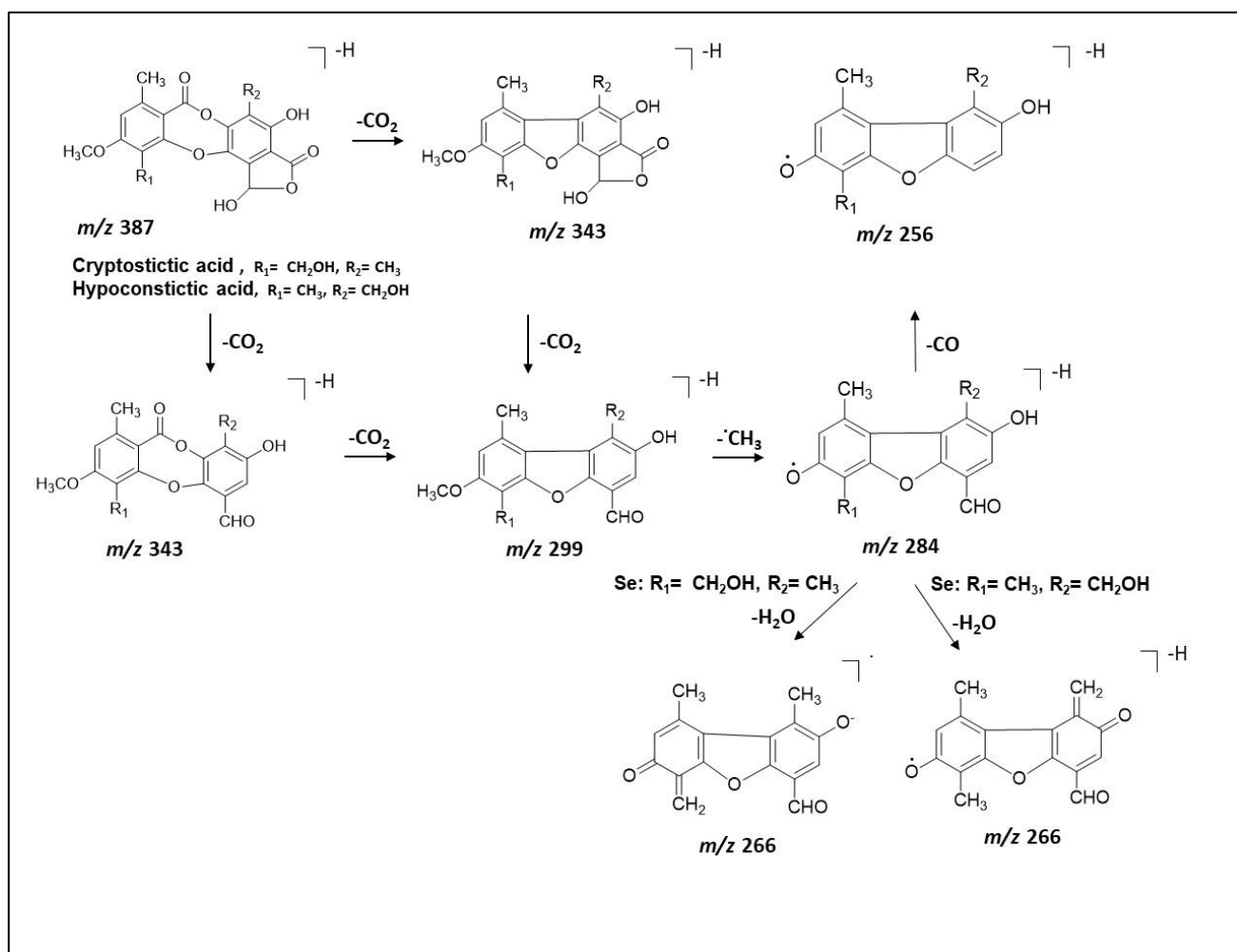
**Fig. 12S** – Fragmentation proposal for lobaric acid [29,33].



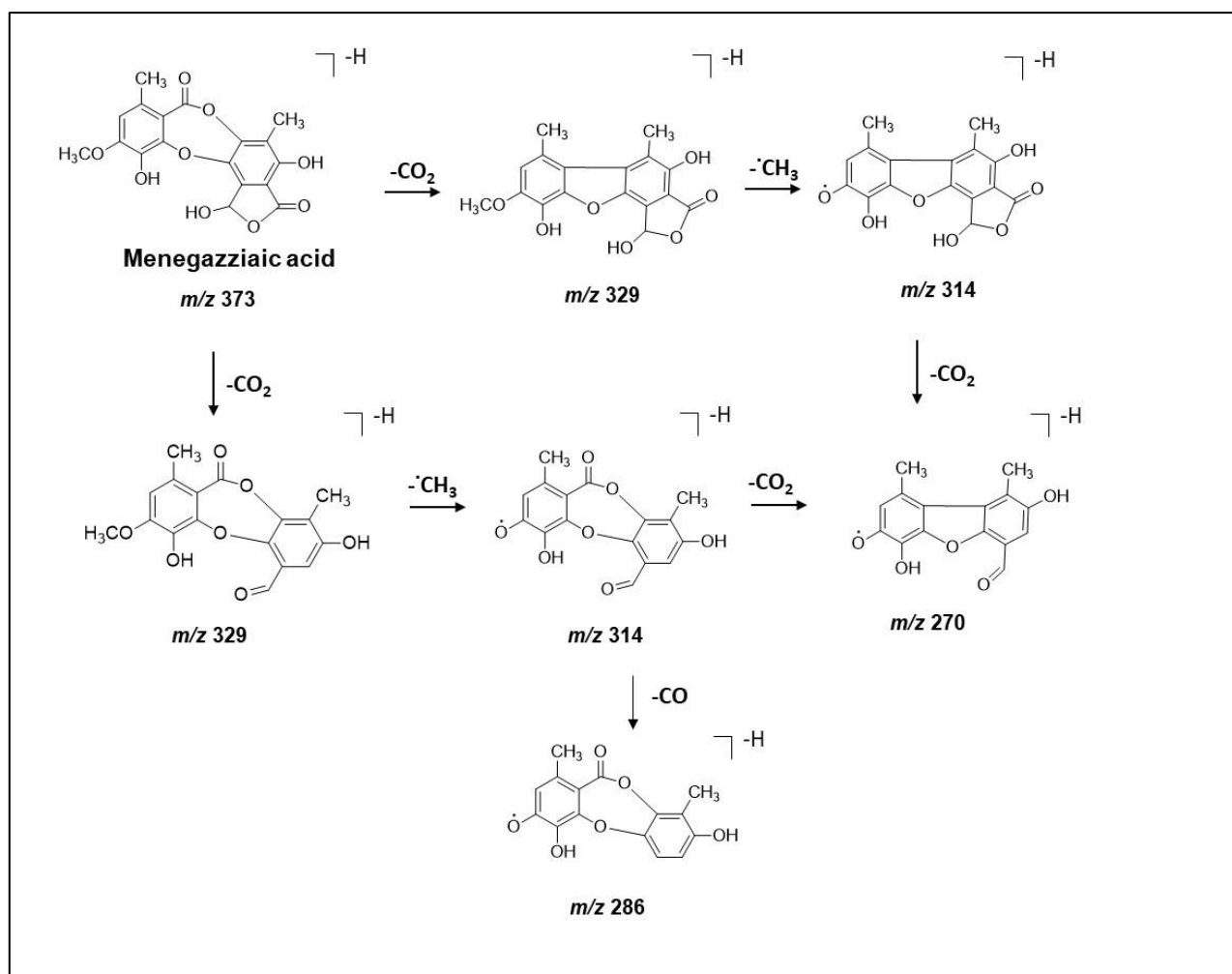
**Fig. 13S** – Fragmentation proposal for depsidone eluted with retention time 48.5 min (peak 5).



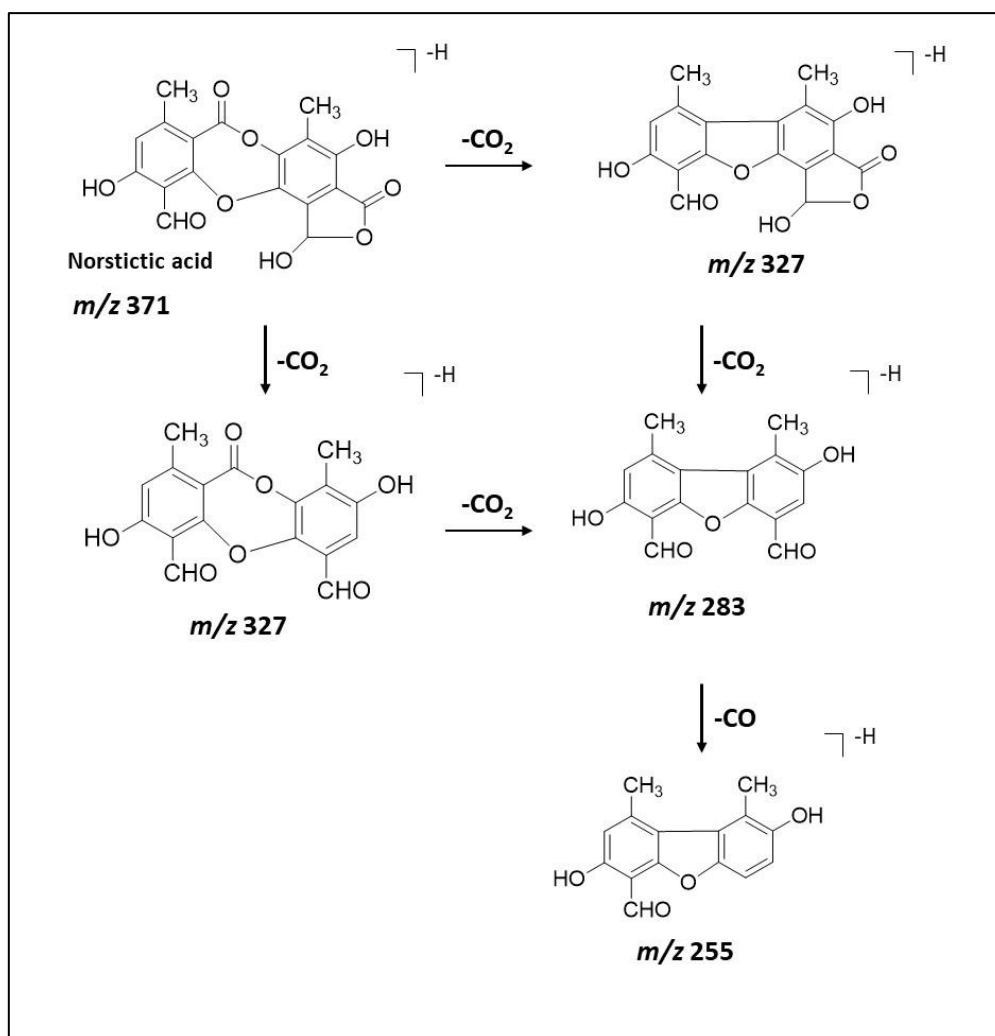
**Fig. 14S** – Fragmentation proposal for depside ( $C_{25}H_{26}O_8$ ) eluted with retention time 48.5 min (peak 5).



**Fig. 15S** – Fragmentation proposal for cryptostictic and hypoconstictic acids.



**Fig. 16S** – Fragmentation proposal for menegazziaic acid.



**Fig. 17S** – Fragmentation proposal for norstictic acid [30, 31].

**Table 2S** – Putative compounds annotated for the acetone extract of representative *Stereocaulon* spp. containing fatty acids.

| Peak number | Experimental MS ( <i>m/z</i> ) | Retention Time (min) | Molecular Formula [adduct type] [M-H] <sup>-</sup>          | Molecular Formula                              | Error (ppm) | MS <sup>E</sup> Fragments                                                                                                                                                                                                                 | Putative identification                       |
|-------------|--------------------------------|----------------------|-------------------------------------------------------------|------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| 1           | 371.2461                       | 52.5                 | C <sub>20</sub> H <sub>35</sub> O <sub>6</sub> <sup>-</sup> | C <sub>20</sub> H <sub>36</sub> O <sub>6</sub> | 7.37        | 353 [M-H <sub>2</sub> O-H] <sup>-</sup> , 265 [M-H <sub>2</sub> O-2CO <sub>2</sub> H] <sup>-</sup> .                                                                                                                                      | Norrangiformic and pseudonorrangiformic acids |
| 2           | 373.0941                       | 52.7                 | C <sub>19</sub> H <sub>17</sub> O <sub>8</sub> <sup>-</sup> | C <sub>19</sub> H <sub>18</sub> O <sub>8</sub> | 4.71        | 195 [M-C <sub>9</sub> H <sub>7</sub> O <sub>4</sub> -H] <sup>-</sup> , 177 [M-C <sub>10</sub> H <sub>11</sub> O <sub>4</sub> -H] <sup>-</sup> , 163 [M-C <sub>9</sub> H <sub>7</sub> O <sub>4</sub> -CH <sub>3</sub> OH-H] <sup>-</sup> . | Atranorin                                     |
| 3           | 385.2628                       | 56.1                 | C <sub>21</sub> H <sub>37</sub> O <sub>6</sub> <sup>-</sup> | C <sub>21</sub> H <sub>38</sub> O <sub>6</sub> | 9.83        | 265 [M-CH <sub>3</sub> OH-2CO <sub>2</sub> -H] <sup>-</sup> .                                                                                                                                                                             | Rangiformic acid                              |

**Table 3S** – Putative compounds annotated for the acetone extract of representative *Stereocaulon* spp. containing lobaric acid (AAS 3419 and APL 767).

| Peak number | Experimental MS ( <i>m/z</i> ) | Retention Time (min) | Molecular Formula [adduct type] [M-H] <sup>-</sup>           | Molecular Formula                               | Error (ppm) | MS <sup>E</sup> Fragments                                                                                                                                                                                                                                                                                                                                                                                                        | Putative identification                                     |
|-------------|--------------------------------|----------------------|--------------------------------------------------------------|-------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| 1           | 269.0453                       | 32.7                 | C <sub>15</sub> H <sub>9</sub> O <sub>5</sub> <sup>-</sup>   | C <sub>15</sub> H <sub>10</sub> O <sub>5</sub>  | 1.12        | 197 [M-C <sub>2</sub> O <sub>3</sub> -H] <sup>-</sup> .                                                                                                                                                                                                                                                                                                                                                                          | Strepsilin                                                  |
| 2           | 473.1821                       | 43.9                 | C <sub>25</sub> H <sub>29</sub> O <sub>9</sub> <sup>-</sup>  | C <sub>25</sub> H <sub>30</sub> O <sub>9</sub>  | 1.99        | 429 [M-CO <sub>2</sub> -H] <sup>-</sup> , 411 [M-CO <sub>2</sub> -H <sub>2</sub> O-H] <sup>-</sup> , 383 [M-2CO <sub>2</sub> -H <sub>2</sub> -H] <sup>-</sup> , 251 [M-C <sub>12</sub> H <sub>14</sub> O <sub>4</sub> -H] <sup>-</sup> , 239 [M-C <sub>13</sub> H <sub>14</sub> O <sub>4</sub> -H] <sup>-</sup> .                                                                                                                | Lobarin                                                     |
| 3           | 467.0974                       | 45.5                 | C <sub>24</sub> H <sub>19</sub> O <sub>10</sub> <sup>-</sup> | C <sub>24</sub> H <sub>20</sub> O <sub>10</sub> | -0.90       | 317 [M-C <sub>8</sub> H <sub>6</sub> O <sub>6</sub> -H] <sup>-</sup> , 167 [M-2C <sub>8</sub> H <sub>6</sub> O <sub>6</sub> -H] <sup>-</sup> , 149 [M-2C <sub>8</sub> H <sub>6</sub> O <sub>6</sub> -H <sub>2</sub> O-H] <sup>-</sup> .                                                                                                                                                                                          | Gyrophoric acid                                             |
| 4           | 411.1551                       | 47.5                 | C <sub>24</sub> H <sub>25</sub> O <sub>8</sub> <sup>-</sup>  | C <sub>24</sub> H <sub>26</sub> O <sub>8</sub>  | 0.36        | 397 [M-CO <sub>2</sub> -H] <sup>-</sup> , 369 [M-CO <sub>2</sub> -CO-H] <sup>-</sup> .                                                                                                                                                                                                                                                                                                                                           | Oxysifulin                                                  |
| 5           | 453.1561                       | 48.5                 | C <sub>25</sub> H <sub>25</sub> O <sub>8</sub> <sup>-</sup>  | C <sub>25</sub> H <sub>26</sub> O <sub>8</sub>  | 2.55        | 409 [M-CO <sub>2</sub> -H] <sup>-</sup> , 391 [M-CO <sub>2</sub> -H <sub>2</sub> O-H] <sup>-</sup> , 377 [M-CO <sub>2</sub> -CH <sub>3</sub> OH-H] <sup>-</sup> , 365 [M-2CO <sub>2</sub> -H] <sup>-</sup> , 350 [M-2CO <sub>2</sub> -CH <sub>3</sub> -H] <sup>-</sup> , 333 [M-2CO <sub>2</sub> -HOCH <sub>3</sub> -H] <sup>-</sup> , 231 [M-C <sub>12</sub> H <sub>13</sub> O <sub>3</sub> -H <sub>2</sub> O-H] <sup>-</sup> . | Ene''-ene'''-Glomelliferic acid and Ene'''-Lobaric acid     |
| 6           | 453.1561                       | 50.2                 | C <sub>25</sub> H <sub>25</sub> O <sub>8</sub> <sup>-</sup>  | C <sub>25</sub> H <sub>26</sub> O <sub>8</sub>  | 3.66        | 409 [M-CO <sub>2</sub> -H] <sup>-</sup> , 382 [M-C <sub>5</sub> H <sub>11</sub> -H] <sup>-</sup> , 365 [M-2CO <sub>2</sub> -H] <sup>-</sup> , 350 [M-2CO <sub>2</sub> -CH <sub>3</sub> -H] <sup>-</sup> , 294 [M-2CO <sub>2</sub> -C <sub>5</sub> H <sub>11</sub> -H] <sup>-</sup> .                                                                                                                                             | 2''-ene lobaric or 3''-ene lobaric or 4''-ene lobaric acids |
| 7           |                                | 50.5                 |                                                              | C <sub>25</sub> H <sub>26</sub> O <sub>8</sub>  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2''-ene lobaric or 3''-ene lobaric or 4''-ene lobaric acid  |
| 8           |                                | 50.8                 |                                                              | C <sub>25</sub> H <sub>26</sub> O <sub>8</sub>  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2''-ene lobaric or 3''-ene lobaric or 4''-ene lobaric acid  |

|    |          |      |                                                             |                                                |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |
|----|----------|------|-------------------------------------------------------------|------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 9  | 455.1661 | 52.0 | C <sub>25</sub> H <sub>27</sub> O <sub>8</sub> <sup>-</sup> | C <sub>25</sub> H <sub>28</sub> O <sub>8</sub> | -9.87 | 411 [M-CO <sub>2</sub> -H] <sup>-</sup> , 393 [M-CO <sub>2</sub> -H <sub>2</sub> O-H] <sup>-</sup> ,<br>384 [M-C <sub>5</sub> H <sub>11</sub> -H] <sup>-</sup> , 367 [M-2CO <sub>2</sub> -H] <sup>-</sup> ,<br>352 [M-2CO <sub>2</sub> -CH <sub>3</sub> -H] <sup>-</sup> ,<br>296 [M-2CO <sub>2</sub> -C <sub>5</sub> H <sub>11</sub> -H] <sup>-</sup> ,<br>281 [M-2CO <sub>2</sub> -CH <sub>3</sub> -C <sub>5</sub> H <sub>11</sub> -H] <sup>-</sup> . | Lobaric acid              |
| 10 | 373.0941 | 52.7 | C <sub>19</sub> H <sub>17</sub> O <sub>8</sub> <sup>-</sup> | C <sub>19</sub> H <sub>18</sub> O <sub>8</sub> | 4.71  | 195 [M-C <sub>9</sub> H <sub>7</sub> O <sub>4</sub> -H] <sup>-</sup> , 177 [M-C <sub>10</sub> H <sub>11</sub> O <sub>4</sub> -H] <sup>-</sup> ,<br>163 [M-C <sub>9</sub> H <sub>7</sub> O <sub>4</sub> -CH <sub>3</sub> OH-H] <sup>-</sup> .                                                                                                                                                                                                            | Atranorin                 |
| 11 | 395.2801 | 54.1 | C <sub>23</sub> H <sub>39</sub> O <sub>5</sub> <sup>-</sup> | C <sub>23</sub> H <sub>40</sub> O <sub>5</sub> | 0.89  | 351 [M-CO <sub>2</sub> -H] <sup>-</sup> , 323 [M-C <sub>4</sub> H <sub>8</sub> O-H] <sup>-</sup> .                                                                                                                                                                                                                                                                                                                                                      | Vinapraesorediosic acid B |
| 12 | 385.2972 | 56.2 | C <sub>22</sub> H <sub>41</sub> O <sub>5</sub> <sup>-</sup> | C <sub>22</sub> H <sub>42</sub> O <sub>5</sub> | 4.67  | 202 [M-C <sub>11</sub> H <sub>21</sub> O <sub>3</sub> -H] <sup>-</sup>                                                                                                                                                                                                                                                                                                                                                                                  | Bourgeanic acid           |
| 13 | 441.1910 | 56.3 | C <sub>25</sub> H <sub>29</sub> O <sub>7</sub> <sup>-</sup> | C <sub>25</sub> H <sub>30</sub> O <sub>7</sub> | -0.74 | 397 [M-CO <sub>2</sub> -H] <sup>-</sup> , 370 [M-C <sub>5</sub> H <sub>12</sub> -H] <sup>-</sup> ,<br>353 [M-2CO <sub>2</sub> -H] <sup>-</sup> , 338 [M-2CO <sub>2</sub> -CH <sub>3</sub> -H] <sup>-</sup> .                                                                                                                                                                                                                                            | Colensoic acid            |

**Table 4S** – Putative compounds annotated for the acetone extract of representative *Stereocaulon* spp. containing depsidones (A.A. Spielmann 12543 and A.A. Spielmann 12672).

| Peak number | Experimental MS ( <i>m/z</i> ) | Retention Time (min) | Molecular Formula [adduct type] [M-H] <sup>-</sup>          | Molecular Formula                              | Error (ppm) | MS <sup>E</sup> Fragments                                                                                                                                                                                                                                                                      | Putative identification |
|-------------|--------------------------------|----------------------|-------------------------------------------------------------|------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| 1           | 387.0730                       | 35.3                 | C <sub>19</sub> H <sub>15</sub> O <sub>9</sub> <sup>-</sup> | C <sub>19</sub> H <sub>16</sub> O <sub>9</sub> | 3.6         | 343 [M-CO <sub>2</sub> -H] <sup>-</sup> , 299 [M-2CO <sub>2</sub> -H] <sup>-</sup> , 284 [M- 2CO <sub>2</sub> -CH <sub>3</sub> -H] <sup>-</sup> , 266 [M-2CO <sub>2</sub> -CH <sub>3</sub> -H <sub>2</sub> O-H] <sup>-</sup> , 256 [M-2CO <sub>2</sub> -CH <sub>3</sub> - CO-H] <sup>-</sup> . | Hypoconstictic acid     |
| 2           | 385.0576                       | 36.2                 | C <sub>19</sub> H <sub>13</sub> O <sub>9</sub> <sup>-</sup> | C <sub>19</sub> H <sub>14</sub> O <sub>9</sub> | 4.27        | 297 [M-2CO <sub>2</sub> -H] <sup>-</sup> , 282 [M-2CO <sub>2</sub> -CH <sub>3</sub> -H] <sup>-</sup> , 267 [M-2CO <sub>2</sub> -OCH <sub>2</sub> -H] <sup>-</sup> .                                                                                                                            | Stictic acid            |
| 3           | 373.0572                       | 36.4                 | C <sub>18</sub> H <sub>13</sub> O <sub>9</sub> <sup>-</sup> | C <sub>18</sub> H <sub>14</sub> O <sub>9</sub> | 3.33        | 329 [M-CO <sub>2</sub> -H] <sup>-</sup> , 314 [M-CO <sub>2</sub> -CH <sub>3</sub> -H] <sup>-</sup> , 299 [M-CO <sub>2</sub> -OCH <sub>2</sub> -H] <sup>-</sup> , 286 [M-CO <sub>2</sub> -CH <sub>3</sub> -CO] <sup>-</sup> , 270 [M-2CO <sub>2</sub> -CH <sub>3</sub> -H] <sup>-</sup> .       | Menegazziaic acid       |
| 4           | 371.0424                       | 39.2                 | C <sub>18</sub> H <sub>11</sub> O <sub>9</sub> <sup>-</sup> | C <sub>18</sub> H <sub>12</sub> O <sub>9</sub> | 5.64        | 327 [M-CO <sub>2</sub> -H] <sup>-</sup> , 283 [M-2CO <sub>2</sub> -H] <sup>-</sup> , 255 [M-2CO <sub>2</sub> -CO-H] <sup>-</sup> .                                                                                                                                                             | Norstictic acid         |
| 5           | 373.0941                       | 52.7                 | C <sub>19</sub> H <sub>17</sub> O <sub>8</sub> <sup>-</sup> | C <sub>19</sub> H <sub>18</sub> O <sub>8</sub> | 4.71        | 195 [M-C <sub>9</sub> H <sub>7</sub> O <sub>4</sub> -H] <sup>-</sup> , 177 [M-C <sub>10</sub> H <sub>11</sub> O <sub>4</sub> -H] <sup>-</sup> , 163 [M-C <sub>9</sub> H <sub>7</sub> O <sub>4</sub> -CH <sub>3</sub> OH-H] <sup>-</sup> .                                                      | Atranorin               |