Geographical index

Numbers in bold refer to illustrations. Those in italics refer to maps.

Alaska 2, 8, 27, 48, 143, 167, 201, 239
Mt McKinley (Denali) 238
Alert, Ellesmere Island 12, 63, 147, 189, 247, 251
Alexandra Land, Franz Josef Land 21, 22
Alpha Ridge, Arctic Ocean 32
Alps 264
Amdarma, Russia 250
Andes 35
Appalachians 35
Amund Ringnes Island, Canada 247
Amsterdam, Spitsbergen 233
Angmagssalik, Greenland 247
Antarctica 3, 72, 87, 222, 227
Antarctic Ice Sheet 84, 261, 264
Atlantic Ocean 1, 47, 48, 68, 222
Arctic Bay, Baffin Island 247
Arctic Ocean 2, 6, 7, 8, 18, 33, 48, 66, 134, 138, 172, 196, 236, 238, 239, 247, 251
Arctic Circle 1, 2, 60
Arkhangelsk, Russia 235
Axel Heiberg Island, Canada 8, 9, 10, 19, 49, 61, 87, 90, 95, 175, 223, 238, 247
Baston 19
Expedition River Valley 19
Little Mutterhorn 19
Thompson Glacier 100, 185
White Glacier 19, 100, 185
Wolf Mountain 156

Baffin Bay 2, 7, 8, 13, 33, 48, 68, 87, 91, 138, 247
Baffin Island, Canada 2, 3, 7, 8, 9, 11, 32, 41, 48, 87, 95, 215, 222, 234, 247, 258
Barnes Ice Cap 87, 94
Cape Hooper 174
Grinnell Ice Cap 99
Penny Ice Cap 90, 94
Banks Island, Canada 8, 12, 32, 68, 87, 143, 217, 247
Barentsbug, Spitsbergen 18, 190, 244, 246, 250
Barents Sea 2, 7, 18, 20, 22, 61, 68, 85, 96, 127, 134, 176, 233, 238, 239, 256
Bathurst Island, Canada 8
Bering Strait 7, 210, 234, 238
Bear Island (Bjornaya), Svalbard 7, 15, 18, 60, 175, 176, 223
Beaufort Sea 2, 8
Beechey Island, Canada 258
Becrenberg, Jan Mayen 20
Bellund, Spitsbergen 116, 248
Bennett Island, Russia 18, 26, 238, 249
Bering Sea 2
Billefjorden, Spitsbergen 174
Bjornaya, Svalbard, see Bear Island
Blomstrandoya, Spitsbergen 153, 253
Bolshievik Island, Severnaya Zemlya 18, 23, 256
British Isles 68, 85, 110, 111, 113, 198, 236, 250, 256
Solway Firth 220, 221
Bylot Island, Canada 87, 95
Cambridge, England 249
Cape Farewell, Greenland 8
Cape Horn 233
Cape Morris Jessup, Greenland 8, 247
Cape of Good Hope 233
China 1, 233, 236
Chukchi Plateau 32
Chukchi Sea 2, 7
Clyde River, Baffin Island 247
Coburg Island, Canada 95
Copenhagen, Denmark 242
Cornwallis Island, Canada 12, 64, 79, 245
Cumberland Sound, Baffin Island 9

Davis Strait 2, 8, 247
De Long Islands 18, 26, 27, 92, 249, 250
Denmark Strait 2, 8
Devon Island, Canada 8, 9, 60, 68, 70, 86, 90, 95, 179, 247
Devon Ice Cap 85, 90, 94
Dikson, Russia 250
Disko Island, Greenland 8
<table>
<thead>
<tr>
<th>Geographical index</th>
<th>271</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Greenland Current</td>
<td>6</td>
</tr>
<tr>
<td>East Siberian Sea</td>
<td>2, 7, 18, 26, 146, 250</td>
</tr>
<tr>
<td>Edgeoya, Svalbard</td>
<td>95, 138</td>
</tr>
<tr>
<td>Ellef Ringnes Island, Canada</td>
<td>8, 78</td>
</tr>
<tr>
<td>Ellesmere Island, Canada</td>
<td>2, 7, 8, 9, 12, 32, 61, 68, 86, 87, 90, 94, 95, 102, 106, 114, 119, 157, 202, 203, 207, 233, 238, 247, 258, 265</td>
</tr>
<tr>
<td>Agassiz Ice Cap</td>
<td>88-89, 94</td>
</tr>
<tr>
<td>Cape Mout</td>
<td>91</td>
</tr>
<tr>
<td>Clements Markham Inlet</td>
<td>247</td>
</tr>
<tr>
<td>Dobbins Bay</td>
<td>130, 142</td>
</tr>
<tr>
<td>Eugenie Glacier</td>
<td>130</td>
</tr>
<tr>
<td>Judge Daly Promontory</td>
<td>247</td>
</tr>
<tr>
<td>Lake Hazen</td>
<td>183</td>
</tr>
<tr>
<td>Manison Icefield</td>
<td>94</td>
</tr>
<tr>
<td>Prince of Wales Ice Cap</td>
<td>87, 91, 94</td>
</tr>
<tr>
<td>Tuborg Lake</td>
<td>248</td>
</tr>
<tr>
<td>Ward Hunt Ice Shelf</td>
<td>90</td>
</tr>
<tr>
<td>England</td>
<td>233</td>
</tr>
<tr>
<td>Etan, Greenland</td>
<td>235</td>
</tr>
<tr>
<td>Eureka, Ellesmere Island</td>
<td>60, 68, 189, 225, 240, 246, 247</td>
</tr>
<tr>
<td>Europe</td>
<td>33, 40, 45, 48, 83, 104, 140, 207, 226, 231, 265</td>
</tr>
<tr>
<td>Fort Congar, Ellesmere Island</td>
<td>235</td>
</tr>
<tr>
<td>Foxe Basin, Canada</td>
<td>8</td>
</tr>
<tr>
<td>Franz Josef Land, Russia</td>
<td>2, 3, 7, 18, 20-22, 32, 46, 61, 65, 86, 92, 95, 96, 118, 119, 139, 204, 236, 238, 242, 249, 250, 251, 258</td>
</tr>
<tr>
<td>Provisor Bay, Baffin Island</td>
<td>7, 9, 11, 12, 36, 99, 108, 129, 169, 230</td>
</tr>
<tr>
<td>George Land, Franz Josef Land</td>
<td>21, 24, 86</td>
</tr>
<tr>
<td>Gjoa Haven, Canada</td>
<td>247</td>
</tr>
<tr>
<td>Godhavn, Greenland, see Nuuk</td>
<td></td>
</tr>
<tr>
<td>Graham Bell Island, Franz Josef Land</td>
<td>21</td>
</tr>
<tr>
<td>Greely Fjord, Ellesmere Island</td>
<td>247</td>
</tr>
<tr>
<td>Albert Heim Bjer</td>
<td>170</td>
</tr>
<tr>
<td>Alfabet Nunatarker</td>
<td>90</td>
</tr>
<tr>
<td>Antarctic Sun</td>
<td>14, 40, 120, 123</td>
</tr>
<tr>
<td>Brodsgdal, Strindberg Land</td>
<td>47, 62, 162</td>
</tr>
<tr>
<td>Canning Land</td>
<td>131</td>
</tr>
<tr>
<td>Eagle's Nest</td>
<td>241</td>
</tr>
<tr>
<td>Elles</td>
<td>30, 38, 39, 61, 241</td>
</tr>
<tr>
<td>Gåseya</td>
<td>15, 37</td>
</tr>
<tr>
<td>Gullbjorn Fjeld</td>
<td>13</td>
</tr>
<tr>
<td>Isfjord</td>
<td>85</td>
</tr>
<tr>
<td>Jameson Land</td>
<td>179, 256</td>
</tr>
<tr>
<td>Kap Weber</td>
<td>159</td>
</tr>
<tr>
<td>Nanortalik</td>
<td>67</td>
</tr>
<tr>
<td>Peary Land</td>
<td>174</td>
</tr>
<tr>
<td>Renland</td>
<td>103</td>
</tr>
<tr>
<td>Teufelschloss</td>
<td>167</td>
</tr>
<tr>
<td>Th. Thomsen Land</td>
<td>48</td>
</tr>
<tr>
<td>Tillit Nunatak</td>
<td>33, 90</td>
</tr>
<tr>
<td>Traill Island</td>
<td>161</td>
</tr>
<tr>
<td>Vestfjord</td>
<td>15, 38</td>
</tr>
<tr>
<td>Ymer Island</td>
<td>14, 183, 213, 215, 216</td>
</tr>
<tr>
<td>Greenland Ice Sheet</td>
<td>9, 68, 82, 84, 85, 87, 90, 92, 94, 95, 96, 97, 118, 121, 125, 129, 168, 184, 224, 250, 260, 261-264</td>
</tr>
<tr>
<td>Daugaard-Jensen Gletscher</td>
<td>16, 74-75, 118</td>
</tr>
<tr>
<td>Dödehunde Gletscher</td>
<td>184</td>
</tr>
<tr>
<td>Dye 1</td>
<td>251</td>
</tr>
<tr>
<td>Dye 2</td>
<td>251</td>
</tr>
<tr>
<td>Dye 3</td>
<td>251</td>
</tr>
<tr>
<td>Edward Bailey Gletscher</td>
<td>103</td>
</tr>
<tr>
<td>Gerard de Geer Gletscher</td>
<td>85</td>
</tr>
<tr>
<td>Jakobshavns Isbrae</td>
<td>96, 118</td>
</tr>
<tr>
<td>Petermann Gletscher</td>
<td>14</td>
</tr>
<tr>
<td>Sorteel Gletscher</td>
<td>249</td>
</tr>
<tr>
<td>Vestfjord Gletscher</td>
<td>122</td>
</tr>
<tr>
<td>Wodzie Gletscher</td>
<td>104</td>
</tr>
<tr>
<td>Greenland Sea</td>
<td>2, 7, 8, 18, 48, 128, 134, 198</td>
</tr>
<tr>
<td>Grise Fjord, Ellesmere Island</td>
<td>12, 13, 188, 247</td>
</tr>
<tr>
<td>Gulf Stream</td>
<td>15, 66</td>
</tr>
<tr>
<td>Hall Beach, Canada</td>
<td>247</td>
</tr>
<tr>
<td>Hayes Island, Franz Josef Land</td>
<td>22, 24, 189, 190</td>
</tr>
<tr>
<td>Henrietta Island, Russia</td>
<td>26, 249</td>
</tr>
<tr>
<td>Herald Island, Russia</td>
<td>27, 238</td>
</tr>
<tr>
<td>Himalayas</td>
<td>35, 264</td>
</tr>
<tr>
<td>Hinlopenstretet, Svalbard</td>
<td>138, 175</td>
</tr>
<tr>
<td>Holland</td>
<td>233</td>
</tr>
<tr>
<td>Hooker Island, Franz Josef Land</td>
<td>242</td>
</tr>
<tr>
<td>Hornsund, Spitsbergen</td>
<td>1, 23, 42, 132-133, 201</td>
</tr>
<tr>
<td>Hudson Bay, Canada</td>
<td>2, 204</td>
</tr>
<tr>
<td>Hudson Strait, Canada</td>
<td>63</td>
</tr>
<tr>
<td>Iceland</td>
<td>2, 8, 20, 48, 94, 247, 250</td>
</tr>
<tr>
<td>Igloolik, Canada</td>
<td>247</td>
</tr>
<tr>
<td>Ikaluit, Baffin Island</td>
<td>12, 67, 230</td>
</tr>
<tr>
<td>Isfjorden, Spitsbergen</td>
<td>63</td>
</tr>
<tr>
<td>Ittoqqortoormiit (Scoresby Sund)</td>
<td>67, 230, 247</td>
</tr>
<tr>
<td>Ivittuut, Greenland</td>
<td>253</td>
</tr>
<tr>
<td>Jan Mayen</td>
<td>2, 8, 18-20, 33, 48, 95, 200, 201, 223, 247</td>
</tr>
<tr>
<td>Japan</td>
<td>140, 258</td>
</tr>
<tr>
<td>Jeanette Island, Russia</td>
<td>26, 249</td>
</tr>
<tr>
<td>Jones Sound, Canada</td>
<td>188</td>
</tr>
<tr>
<td>Kane Basin</td>
<td>130, 247</td>
</tr>
<tr>
<td>Kangerlussuaq Fjord, Greenland</td>
<td>82, 98, 105, 127, 168, 230</td>
</tr>
<tr>
<td>Kara Sea</td>
<td>2, 7, 18, 22, 23, 26, 96, 140, 238, 250</td>
</tr>
<tr>
<td>Kejser Franz Josef Fjord, Greenland</td>
<td>167, 168</td>
</tr>
<tr>
<td>King William Island, Canada</td>
<td>8</td>
</tr>
<tr>
<td>Khatanga, Russia</td>
<td>250</td>
</tr>
<tr>
<td>Komsoomets Island, Severnaya Zemlya</td>
<td>18, 23, 25, 70</td>
</tr>
<tr>
<td>Academy of Sciences Ice Cap</td>
<td>23, 93</td>
</tr>
<tr>
<td>Kong Karls Land, Svalbard</td>
<td>22, 204</td>
</tr>
<tr>
<td>Kong Oscar Fjord, Greenland</td>
<td>161, 168, 179, 241</td>
</tr>
<tr>
<td>Kongsfjorden, Spitsbergen</td>
<td>56, 58-59, 81, 121, 164, 166, 192, 220, 228, 248, 268</td>
</tr>
<tr>
<td>Korea</td>
<td>140</td>
</tr>
<tr>
<td>Krossfjorden, Spitsbergen</td>
<td>63, 67, 70, 77, 125, 160, 206, 232, 234, 259</td>
</tr>
<tr>
<td>Kvitoya, Svalbard, see White Island</td>
<td></td>
</tr>
<tr>
<td>Lake District, England</td>
<td>198</td>
</tr>
<tr>
<td>Lancaster Sound, Canada</td>
<td>7, 8, 64, 68, 236, 245</td>
</tr>
<tr>
<td>Lapieva</td>
<td>2, 7, 18, 23, 26, 60, 96, 146, 250</td>
</tr>
<tr>
<td>Lena River, Russia</td>
<td>26</td>
</tr>
<tr>
<td>Lilliehöökfjorden, Spitsbergen</td>
<td>259</td>
</tr>
<tr>
<td>Little Bathurst Island</td>
<td>256</td>
</tr>
<tr>
<td>Lomonosov Ridge, Arctic Ocean</td>
<td>32</td>
</tr>
<tr>
<td>Longyearbyen, Spitsbergen</td>
<td>18, 52, 66, 145, 146, 147, 190, 233, 244, 250, 256, 257</td>
</tr>
<tr>
<td>Magnetic North Pole</td>
<td>8, 78, 236</td>
</tr>
<tr>
<td>Matochkin Strait, Novaya Zemlya</td>
<td>18, 22</td>
</tr>
<tr>
<td>McClintock Inlet, Canada</td>
<td>247</td>
</tr>
<tr>
<td>M'Clure Strait, Canada</td>
<td>7, 8, 247</td>
</tr>
<tr>
<td>Meighen Island, Canada</td>
<td>95</td>
</tr>
<tr>
<td>Melville Island, Canada</td>
<td>8, 94, 95, 247</td>
</tr>
<tr>
<td>Mendelev Ridge, Arctic Ocean</td>
<td>32</td>
</tr>
</tbody>
</table>
Geographical index

Mestersvig, Greenland 174
Meta Incognita Peninsula, Baffin Island 36, 108, 169
Minnesota 183
Moffen, Svalbard 258

Nanisivik, Baffin Island 256
Nansen–Gakkel Ridge, Arctic Ocean 48
Nares Strait 7, 8, 70, 230
New Siberian Islands, Russia 2, 3, 18, 26, 60, 87, 92, 96, 140, 143, 210, 238, 249, 250
Ostrov Bol’shoy Lyakhovskiy 249
Ostrov Kotel’ny 249
Ostrov Malyy Lyakhovskiy 249
New York State 183
Newfoundland, Canada 35
Grand Banks 127
Nordaustlandet, Svalbard 15, 18, 22, 85, 87, 95, 118, 175, 199, 244
Austfonna 22, 76, 83, 98, 244
Murchisonfjorden 154, 155, 174
Nordvestfjord, Greenland 13, 16–17, 41, 74–75, 121, 129, 167
Northeast Greenland National Park 14, 242
Northeast Passage (Northern Sea Route) 140–141, 233, 234, 250
Northwest Passage 7, 8, 68, 139–140, 143, 233, 234–247, 266
North America 1, 6, 9, 13, 45, 48, 83, 85, 104, 110, 146, 226, 265
North Kent Island, Canada 95
North Pole 1, 2, 6, 26, 73, 115, 134, 135, 200, 204, 236–240, 242
North Atlantic Drift 15
North Water, Baffin Bay 68, 138
Norway 167, 175, 220, 239, 253, 258
Norwegian Current 66
Norwegian Sea 7, 13, 18, 48, 68, 119
Novaya Zemlya, Russia 2, 3, 7, 8, 22, 32, 61, 92, 95, 96, 127, 140, 218, 224, 233, 250, 256

Cape Desire 64
Nunavut, Canada 12, 230, 267
Nuuk, Greenland 14, 67, 235, 247
Ny–Ålesund, Spitsbergen 60, 190, 219, 221, 237, 244, 250, 251, 254–255, 258, 259
Ob River, Russia 140
October Revolution Island, Severnaya Zemlya 18, 23, 25

Matushevich Fjord 43
Matushevich Ice Shelf 23
Oslo, Norway 238
Pacific Ocean 1, 222
Pangnirtung, Baffin Island 247
Patagonia 167, 264
Pioneer Island, Severnaya Zemlya 23
Pond Inlet, Baffin Island 247
Prince of Wales Island, Canada 8, 182
Prince Patrick Island, Canada 8
Prins Karls Forland, Svalbard 15, 22, 176, 182
Pyramiden, Spitsbergen 190
Queen Elizabeth Islands, Canada 2, 3, 7, 8, 12, 68, 215, 245
Resolute Bay, Canada 12, 63, 64, 79, 230, 245, 247
Reykjavik, Iceland 247
Rocky Mountains 9, 113
Rudolf Island, Franz Josef Land 22
San Andreas Fault, California 39
Scandinavia 1, 2, 32, 35, 40, 85, 110
Scoresby Sund, Greenland 8, 13, 16–17, 37, 49, 74–75, 121, 124, 128, 129, 167, 168, 266
Scotland 15, 35, 40, 47, 48, 106, 111, 167, 220
Shetland Islands 12
Severnaya Zemlya, Russia 2, 3, 7, 18, 21, 23–26, 52, 68, 86, 87, 92, 93, 95, 96, 118, 140, 182, 240, 250

Gloermerniy Station 66
Siberia 1, 3, 32, 48, 140, 146, 172, 175, 230, 233, 234, 266
Sierra Nevada, California 112
Smeerenburgfjorden, Spitsbergen 188
South Pole, Antarctica 239
Spitsbergen 18, 42, 80, 86, 95, 106, 116, 117, 119, 134, 135, 138, 148, 156, 175, 194, 220, 224, 233, 239, 244, 256

Avasatmarkbreen 163, 176
Austre Broggerbreen 50–51, 53
Austre Lovénbreen 106, 126
Bakaninbreen 20, 21
Bolterdalen 158
Comfortlessbreen 171
Conwaybreen 29, 254–255

Dronningfjella 258
Engelskulbukta 144, 171, 172, 173
Fjortende Julibreen 45
Fritjofbreen 101
Gipsdalbreen 152
Haakenbreen 57
Istfjord Radio 66
Kapp Linné 218
Kongsvegen 107, 109, 181
Kronbreen 29, 110, 197, 268
Lomonosovfonna 69
London 253
Midtre Lovénbreen 178, 180
Newtonbreen 44, 224
Nordenskiöldbreen 72
Oscar II Land 163, 173
Ossian Sarsfjellet 4, 107
Paulabreen 20, 21, 190
Pedersenbreen 81, 151
Reindalen 150, 177
Rindersbukta 190
Scott Turnerbreen 52
Scottbreen 248
Signedalen 70, 125, 182
Skobreen 54
Serkapp 134
Tinayrebuakta 67, 160, 200, 234
Tre Kroner 258
Wilsonbreen 71
Zeppelinfjellet 50–51
Srednij (Middle) Island, Severnaya Zemlya 26, 240, 252
Srednij 27, 60, 240
Steffansson Island, Canada 182
Storfjorden, Svalbard 138
Svea, Spitsbergen 52, 190, 244

Taymyr Peninsula, Siberia 7, 18
Thule (Qanaaq), Greenland 67, 147, 231, 235, 247, 251
Tiksi, Russia 250
Ukraine 226
Chernobyl 226
Geographical index

Upernavik, Greenland  62, 71, 247
Ural Mountains, Russia  22, 44
Ushakov Island, Russia  18, 21
Uummannaq, Greenland  253

Vaigach Island, Russia  18
Van Keulenfjorden, Spitsbergen  19, 46, 135, 174, 186–187
Van Mijenfjorden, Spitsbergen  190
Victoria Island, Canada  2, 8, 12, 32, 68, 143, 217, 247

Victoria Island, Franz Josef Land  18, 21
Vilchek Land, Franz Josef Land  21
Viscount Melville Sound, Canada  7

Wales  15, 106
Cadair Idris  111
Cwm Cau  111

West Virginia  15
White Island (Kvitoya), Svalbard  18, 21, 135, 239
White Sea, Russia  233

Wrangel Island, Russia  2, 3, 7, 18, 27, 92, 97, 148, 191, 204, 210, 216, 218, 219, 226, 250, 251
Ushakovskoye  27
Neizvestnaya River  148
Neozhdannaya River  28

Yakutsk, Russia  235
Yamal Peninsula, Russia  18
Yenisey River, Russia  140
Yosemite National Park, California  112
Yukon, Canada  143
Subject index

*Numbers in bold refer to illustrations.*

- airships 239
  - Italia 239
- Norwe 239
- airship mast (Ny-Ålesund) 239
- airstrips 250–251
- algae 207
- alluvial fans 161
- American Geographical Society 247
- animals [see also birds, fish, insects, mammals] 141, 193–228
- adaptation 194
- atmospheric pollution, effect on 195
- beetles 212
- breeding strategy 226
- butterflies 212
- diversity 194
- environmental factors 195–196
- feeding strategy 226
- future prospects 226–227
- invertebrates 196, 208
- marine 196–205
- mites 212
- mosquitoes 193–194, 212, 215
- moths 212
- pollution, effect of 226
- population crashes 226
- spiders 212

- springtails 212
- sustainability 194
- survival 226
- tundra 207–225
- architecture 27
- Arctic 2
- Arctic Circle 1, 2
- Arctic Council 251–252
- Arctic ecosystem 226, 229
- Arctic seas 6–8, 6, 7
- Arctic day 60
- Arctic night 60
- Atlantic convos 250
- atmospheric effects 73, 77–80
  - Aurora Borealis (Northern Lights) 77, 80
  - glory 78
  - haloes 73, 79
  - irises 77
  - mock suns 73
  - Reflectivity of sea ice and water 77
  - Sun dogs 77
  - Sun pillars 73
- bacteria 207
- barrens 210
- beaches 171–175
  - beach bars 171
- beach ridges 161
- driftwood 172, 175
- human litter 172
- meltout pits 172
- raise 174, 265
- role of sea ice 172
- whale bones 186–187
- biology 240
- birds 193–227, 244
  - arctic tern 193, 222, 225, 226
  - auk 198, 222
  - barnacle goose 220, 221, 225
  - brent goose 220
  - divers 198, 223
  - dvoe (little auk) 222
  - ducks 198
  - dunlin 221
  - elder 220, 221
  - fulmar 198, 222
  - geese 203, 220
  - glaucous gull 221
  - great northern diver (common loon) 223
  - guillemot 121, 197, 222
  - guilis 198, 221, 225
  - gry falcon 218
  - herring gull 221
  - ivory gull 222
### Subject Index

- **jaeger**: 217, 222, 223
- **kittiwake**: 221
- **knott**: 221
- **little auk**: 222, 225, 256
- **loon, common (great northern diver)**: 223
- **nesting sites**: 206
- **peregrine falcon**: 218
- **phalaropes**: 222
- **pink-footed goose**: 220
- **ptarmigan**: 217–218, 219
- **puffin**: 222
- **raptors**: 219
- **raven**: 218
- **red-throated diver**: 223
- **sandpipers**: 221
- **skua**: 217, 222, 225
- **snow-bunting**: 217
- **snow goose**: 226
- **snowy owl**: 218
- **stint**: 221
- **terns**: 198
- **turnstone**: 221
- **waders**: 210, 221
- **blockfields (Felsenmeer)**: 159
- **bombers**: 251
- **British Admiralty (Navy)**: 64, 139, 236
- **Cambridge Spitsbergen Expeditions**: 248
- **Cambridge University**: 249
- **capital, of Svalbard**: 256
- **Chernobyl power station disaster**: 226
- **coasts**: 164, 165–175
- **sea cliffs**: 176
- **stacks**: 176
- **coastal glaciers**: 165
- **climate**: 1, 65–68
  - **temperature**: 58–68, 73
- **climatic change**: 3, 68–73, 231, 261, 263, 266
- **environmental response**: 261
- **ice cores**: 70, 76, 261, 263
- **lake record**: 183–184
- **Late Glacial Maximum**: 104
- **Little Ice Age**: 70, 139–140
- **oxygen isotope record**: 68, 263
- **past glacial activity**: 113
- **precipitation increase in Arctic**: 261
- **warming in Arctic**: 261
- **Cold War**: 3, 229, 251, 266

- **computer models of climate**: 261
- **conservation**: 194
- **crustal depression (by ice sheet)**: 85
- **crustal rebound**: 173, 265

- **Danish Polar Centre**: 242
- **Dark Ages**: 14
- **debris fan**: 166
- **Defense Early Warning (DEW) Line**: 251
- **definition of Arctic**: 1–5
- **deglaciation**: 173
- **delta**: 166, 167, 179, 180

- **‘Eagle’s Nest’**: 241
- **early sedimentation, life and climate**: 42–44
- **ecology**: 193–228
- **environmental records (lakes)**: 182–185

- **Fauna, see animals, birds, fish, insects, mammals fell-fields**: 210
- **Felsenmeer, see blockfields**: 210
- **fish**: 193–228
  - **arctic char**: 182–184, 197–198
  - **bullhead**: 197
  - **capelin**: 198
  - **cod**: 197
  - **eel-pout**: 197
  - **salmon**: 197
  - **sculpin**: 197

- **Fitzbillies (bakery)**: 249
- **fjords, see glacial erosional landforms**: 210
- **flora, see plants**: 207
- **food web**: 207
- **fossils**: 38, 42
  - **algal mounds (stromatolites)**: 38, 42
  - **bivalves**: 48
  - **dinosaurs**: 48
  - **forests**: 52
  - **plants**: 48
  - **shelly fauna**: 46
  - **freeze–thaw processes**: 144
  - **frost action**: 143–164, 207
  - **frost heave**: 233

- **general circulation models**: 262
- **geography**: 1–30
- **geological evolution**: 31–54
  - **Baltica**: 40

- **Caledonian mountain building**: 35, 40, 42, 44
- **climatic cooling**: 52
- **events**: 34
- **forests**: 49
- **geological foundations**: 40–41
- **glaciation (late Precambrian)**: 39, 42
- **glaciation (Quaternary)**: 52
- **Laurentian (Canadian Shield)**: 35, 36, 40, 44
- **mountain building (Palaearctic)**: 49
- **North Atlantic opening**: 47
- **northward drift**: 33
- **palaeoclimate**: 32–33
- **passive margins**: 35
- **plate tectonics**: 31
- **temperate climate**: 52
- **tropical deserts**: 45
- **sedimentary basins**: 32, 44, 46
- **teranes**: 39
- **geological expeditions (Danish)**: 241
- **geological fieldwork**: 33, 248, 249
- **geological processes**: 31–39
- **Continental collision**: 34–35
- **deformation**: 36
- **earthquakes**: 34
- **faulting**: 36, 39, 44–46, 167
- **folding**: 40, 42, 44, 50, 53
- **igneous**: 31
- **metamorphic**: 31, 36, 43–45
- **sea-floor-spreadings**: 33, 48
- **sedimentary**: 31
- **spreading (submarine) ridges**: 48
- **Snowball Earth hypothesis**: 39
- **volcanic**: 33–34
- **tectonic**: 31
- **Geological Survey of Canada**: 241
- **Geological Survey of Denmark and Greenland**: 241
- **geological time**: 35, 41, 53
- **Carboniferous**: 50–51, 53
- **Cretaceous**: 46, 48
- **Devonian**: 45
- **Holocene**: 70
- **Jurassic**: 46
- **Neogene**: 52
- **Ordovician**: 45
- **Palaearctic**: 47, 48, 49, 52
- **Palaeozoic**: 42–43
- **Permian**: 46
Subject index

geological time (cont.)
- Precambrian 30–31, 39, 41–43, 47
- Proterozoic 38
- Quaternary 52
- Silurian 45
- Triassic 46
- timescale 34

glacial depositional landforms 108–112
- debris flows 109
- economic importance of deposits 104
- eskers 112
- fluvial processes 112
- kame terraces 112
- landscape 103–104
- moraines 110, 181
- outwash debris 148
- rockfall 110
- sediments 108–112
- stagnation features 110
- till 110

glacial erosional landforms 11, 104–108
- arêtes 106
- cirques (corries, cwms) 105, 106, 111
- glacial troughs 105
- glacial valleys 105, 167
- gouge marks 107
- ice-smoothed bedrock 112
- lochs (Scotland) 167
- parabolic cross-sectional profile 166
- plucking 106
- polishing 106
- pyramidal peak (horn) 106
- roches moutonnées 108
- striations 106, 107
- U-shaped cross-section 166–167
- glacial–interglacial cycles 173
- glacier ice 81–84
- glaciers 9, 10, 23, 26, 83–114, 171
- cirque (corrie, cwm) glaciers 86
- cold (Polar) glaciers 87
- crevasses 92, 99, 100, 101–102, 119
- debris transport 100
- deformation 94, 96
- distribution 87–92, 94, 95, 96, 247, 250
- flow 94–99
- folding 102
- foliation 102
- geothermal heat, effect of 97
- glacier sliding 96–97
- glacier tongue 93
- grounded (on sea floor) 119
- health (mass balance) 92–94
- ice caps 9, 22, 26, 85, 86
- ice cliffs 87, 93, 165
- icefields 9, 15, 86, 88–89
- ice sheets (present-day) 8, 12, 84, 168, 247, 260–261, 261
- ice shelves 23, 87
- ice-dammed lakes 99
- ice walls 87
- mass balance 92–94
- meltwater 10, 100, 102–103, 165
- moulins 103
- moraines 21, 25, 50, 168
- moraines, medial 92, 102
- moraines, lateral 98
- nunataks 86, 88–90
- piedmont glaciers 87
- polythermal glaciers 87
- recession (retreat) 207, 264
- response to climate 92–94, 103–104
- sea-level rise, contribution 90, 264, 265
- size and shape 84
- sole 122
- subglacial streams 165, 171
- superimposed ice 93
- surface features 100
- surging 99, 101
- temperate (warm) glaciers 87
- tidewater glaciers 85, 87, 92, 132–133
- valley glaciers 20–21, 86
- glaciology 83–142, 240–241
- global environmental change 241
- global warming 3, 71–73, 141, 227, 229, 262
- carbon dioxide 71, 227
- chlorofluorocarbons (CFCs) 72
- genetic damage 73
- greenhouse gases 71, 195, 261, 261
- methane 71, 160, 261
- positive feedback effect 137
- sea ice reduction 137
- ultraviolet radiation 73, 227
- Governor, of Svalbard (Sysselmann) 242
- ground ice 144, 148
- Auytés (or naled) 148, 151
- ice wedges 148
- pinnas 148, 150
- ground instability 151–152
- solifluxion (downslope creep) 151–152
- Gulf Stream 15

herbivores 148
- human activity 188–190, 229–259
- aircraft transport 189, 240, 242, 246, 250
- airship travel 239
- archaeological sites 258
- Bell 212 helicopter 249
- boating 7, 58, 244
- camping 244
- church 257
- coal miners’ mural 246
- coal mining 190, 253, 254–255, 257
- coal mining disaster 258
- coal reserves 190
- cruise ships and visitors 228–229, 254–255, 258, 259
- De Havilland Twin Otter 246
- diving 127
- dog-sledding 182, 231
- Dorset Culture 229–230, 258
- driftwood, use of 234
- ecological disruption 194
- education 257
- environmental hazards 251, 252
- Eskimo, see Inuit
- exploitation 3, 229, 266
- exploration 3, 229, 231–240
- exploration map 235
- family life 257
- fieldwork supplies 243
- fossil fuel burning 227
- Franklin’s winter quarters 258
- freeze–thaw processes on coffins 189
- fuel drum leakage 251, 252
- fur trade 234
- gas reserves 127
- gold exploitation 143
- grapes 189, 232–233, 258
- grazing by animals 231
- helicopter transport 65, 129, 189, 240, 242
- home rule 267
Subject index

Hudson Bay Company 234, 236
hunting 194, 200, 230
huskies 230
icebreakers 129, 139, 141, 236, 240
ice core drilling 76
igloo 230
indigenous peoples (Inuit, Inughuit) 3, 141,
229–230, 188, 200, 229, 230, 251–252, 266
Inuit culture 230
Inuit settlements 230
Inuit travelling methods 230
Inuktut language 230, 244
Komi 231–232
local government 257
mapping 233, 241
meteorological stations, preservation of 258
mineral exploration 3, 233–234, 252–256
mining camps 253
mining settlement 257, 258
navigation (maritime) 172–173
Norse 231, 233
Northeast Passage (Northern Sea Route) 140,
233–234, 250, 253
Northwest Passage 140, 143, 233–234, 236,
253–254, 252, 266
North Pole attempts 236–240
overwintering, by whalers 233
plague 231
policy formulation 252
political background 12, 14, 18
Pomors 233
protected areas 244, 258
Sami 231–232
schools 257
scientific research 240–244, 258
sealing 233
self-government, by indigenous peoples 230
settlements (Eurasian Arctic) 250
settlements (North American Arctic) 247
shipping 189, 266
Sirius Patrol 182
snowmobile travel 98, 188, 244, 265–266
sovereignty issues 266
Soviet airborne expedition to North Pole 240
strategic and military importance 12, 21–22,
27, 189–190, 250–252, 251, 252, 266
Stone shelters (Inuit) 230
summer camps (Inuit) 230
surveying (of fjords) 168
survival techniques 244
sustainable development 229
tourism 5, 228–229, 240, 257–259, 266
trade 233
trappping 194, 233
trappers’ huts 233, 234
University Courses on Svalbard (UNIS)
256–257
University research 241
weather stations 62, 63, 66, 67, 70, 189–190
whaling 186–187, 188, 233, 236
humus 207
hydrocarbon (oil) potential 46, 48
Ice Age 52, 198
Weichselian (Europe) 52
Wisconsinan (North America) 52
icebergs 5, 12, 16, 24, 94, 114, 115–129, 130, 137,
164, 165, 168
air content 124
beached 121, 122
beach imprints 123
bergy bits 119, 122, 125–126, 164
blue colour 24, 82–83, 123–124
brash ice 119
collisions with 125, 127
crevasses 119, 121
debris transport 122
detector 125
dimensions 116–118
disintegration 122
drift 118–123
formation 117, 118
growlers 122, 125
hazards 125–127
juddermarks 126
keels 116, 118
melting 122
ploughing 126
shale 116, 122–123
size 118
tabular 25, 93, 116, 118
waterlines 123–124
ice sheets (former) 68, 84
Barents Ice Sheet 68
Laurentide Ice Sheet 70
Scandinavian Ice sheet 68
insects 193, 207, 212
Intercontinental Ballistic Missiles 251
International Geophysical Year 241–242
lagoons 171, 180
lakes 165, 182–188
environmental record 183–184
formation 183
glacier-dammed lakes 185
iceberg calving 185
ice-marginal lakes 26
lake ice 183
lake margins 184–185
lake sediments 184
meltwater supply 182
sediment supply 184
supraglacial lakes 29
varves 184
Little Ice Age 14
longshore currents 171
mammals (see also animals) 192–227
Arctic fox 193, 195, 204, 219, 222–223, 225,
226, 233
Arctic hare 193, 203, 215, 217
baleen whales 199
bearded seal 200
beluga 199, 202, 230
blue whale 199–200
bowhead whale 199, 230
caribou 216–217, 224
dolphins 199
greenland right whale 199
harp seal 200
herbivores 210
hooded seal 200
insulation 195
killer whale 199
Kodiak brown bear 201
lemming 193, 202, 215, 218, 225
lemming population fluctuations 215
musk ox 193, 195, 203, 210, 215, 224, 226
musk ox defensive formation 215
musk ox hunting and exploitation 215–216,
230
musk ox movement 215
narwhal 199, 203, 230
polar bear 193, 195, 201–202, 223–226, 230,
233, 266
Subject index

mammals (see also animals) (cont.)
  polar bear feeding 203
  polar bear hazard to humans 204, 205, 224
  polar bear incursions inland 224
  polar bear protection 204
  polar bear range 204

porpoise 199
reindeer 192, 193, 210, 215, 217, 218, 224, 226
ringed seal 200, 203
seals 193, 200, 230, 244, 266
sperm whale 199–200
temperature tolerance 195
walrus 193, 199, 200, 203, 226, 244, 266
whales 193, 198, 230
whale communication 200
whale products 200
wolf, grey 195, 224–225

mammoths 27, 215
marine biology 238
marine ecosystem 198
marine organisms 196
benthic animals 197
diatoms 196
flagellates 196
ooze 197
plankton 198
phytoplankton 196–197
zooplankton 197, 199

marshes 213
meteorology 238, 241
microclimate 207–208, 212
midnight sun 1, 56, 60, 61, 63, 165
minerals
  coal 190, 252
  cryolite 252–253
  diamonds 253
  gas 127, 252, 256
  gold 143, 253, 256
  hydrocarbons 256
  lead 253, 256
  marble 253
  oil 252, 256
  pyrites (fool’s gold) 234
  zinc 253, 256

mountain building 44–45, 49

Napoleonic Wars 236
National parks 258
nematode worms 207

Nobel Peace Prize 238
North Atlantic Drift 15
North Atlantic opening 48
Northern Exploration Company 253
North Magnetic Pole 8, 236
North Pole 2, 26, 200, 236–240
Norwegian Polar Institute 241–242, 244
nuclear reactors 170
nuclear weapons 22, 251

ocean circulation 138
ocean temperature change 261
oceanography 238
Oxford University 249
ozone depletion/hole 72, 195, 227

patterned ground 150–151, 207
frost cracks 152
polygons 150, 153
stone circles 150, 154
stone streams 151, 156
stone stripes 150, 155
peat bogs 212
people
  Ahlmann, Hans 241
  Amundsen, Roald 140, 236, 237, 239
  Andrée, Salomon August 135, 239
  Axel Heiberg 247
  Barents, Wilhem 233
  Buchan, Captain David 236
  Chancellor, Richard 233
  Cook, Frederick 238
  Daly, Judge 247
  De Long, G. W. 238, 249
  Erik the Red 231
  Franklin, Sir John 140, 236, 247
  Franz Josef, Archduke 249
  Froebisher, Sir Martin 143, 234
  Greely 247
  Harland, Brian 248
  Herbert, Sir Wally 239
  Jackson, Frederick 238
  Johansen, Hjalmar 238
  Kane 247
  Koch, Laue 240, 241
  Longyear, John M. 257
  Lyakov, Ivan 249
  Markham, Clements 247
  M‘Clure, Robert 247
  Nansen, Fridtjof 135, 238, 240
  Nobile, Umberto 239
  Nordenskiöld, Adolf Erik 233
  Parry, Edward 236
  Peary, Robert 238–239
  Phipps, Constantine John 236
  Ross, James Clark 236
  Ross, John 236
  Scoresby, William 236
  Sedov, Georgiy 242
  Sverdrup, Otto 238, 247
  Ushakov 182
  Willoughby, Hugh 233
  periglacial zone 143
  permafrost 143–148
  active layer 144, 207
  construction problems 144–146, 145–146, 261
  depth 146
  distribution 149
  drainage 144
  geothermal heat, effect of 147
  mammoths, preserved in permafrost 147–148, 148
  response to climatic change 160, 261
  role in soil development 207
  sub-sea permafrost 146
  vulnerability 159–160
photosynthesis 196
place names 247–250
plants 193–228
  adaptation 194
  arctic poppy 210
  aquatic plants 212
  atmospheric pollution, effect from 195
  birch 210, 212
  diversity 194
  environmental factors 195–196
  ferns 195, 210
  flowering plants 195, 206
  fragile fern 210
  future prospects 226–227
  grasses 208, 210
  hairy lewsowort 214
  herbs 208
  lichens 206, 208, 210
  marine plants 196–205
  marsh plants 212
  mountain avens 194
Subject index

<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>mosses</td>
<td>206</td>
</tr>
<tr>
<td>moss campion</td>
<td>194</td>
</tr>
<tr>
<td>nodding lychins</td>
<td>214</td>
</tr>
<tr>
<td>purple saxifrage</td>
<td>210</td>
</tr>
<tr>
<td>reindeer moss</td>
<td>210</td>
</tr>
<tr>
<td>rushes</td>
<td>208</td>
</tr>
<tr>
<td>saxifages</td>
<td>210</td>
</tr>
<tr>
<td>sedges</td>
<td>208</td>
</tr>
<tr>
<td>shrubs</td>
<td>208</td>
</tr>
<tr>
<td>Svalbard poppy</td>
<td>210</td>
</tr>
<tr>
<td>survival</td>
<td>226</td>
</tr>
<tr>
<td>trees (dwarf)</td>
<td>208</td>
</tr>
<tr>
<td>tundra</td>
<td>207–225</td>
</tr>
<tr>
<td>willow</td>
<td>193, 210, 211, 212</td>
</tr>
<tr>
<td>willow herb</td>
<td>292</td>
</tr>
<tr>
<td>whitlow grass</td>
<td>210</td>
</tr>
<tr>
<td>yellow mountain saxifrage</td>
<td>194, 209</td>
</tr>
<tr>
<td>pingo</td>
<td>148</td>
</tr>
<tr>
<td>polar Continental Shelf Project (Canada)</td>
<td>245</td>
</tr>
<tr>
<td>polar desert</td>
<td>208</td>
</tr>
<tr>
<td>pollution</td>
<td>170, 195, 261</td>
</tr>
<tr>
<td>polychlorinated hydrocarbons</td>
<td>195</td>
</tr>
<tr>
<td>polynyas</td>
<td>138</td>
</tr>
<tr>
<td>post-glacial uplift</td>
<td>174</td>
</tr>
<tr>
<td>radioactive waste</td>
<td>170</td>
</tr>
<tr>
<td>radiocarbon dating</td>
<td>174</td>
</tr>
<tr>
<td>railway track</td>
<td>253</td>
</tr>
<tr>
<td>rivers</td>
<td>28, 105, 165, 171, 175–182, 176–177</td>
</tr>
<tr>
<td>Aufr (icings)</td>
<td>178, 180, 181</td>
</tr>
<tr>
<td>bars</td>
<td>175, 180</td>
</tr>
<tr>
<td>braiding</td>
<td>176–177, 179</td>
</tr>
<tr>
<td>canyons</td>
<td>179</td>
</tr>
<tr>
<td>crossing braided rivers</td>
<td>180</td>
</tr>
<tr>
<td>discharge</td>
<td>179</td>
</tr>
<tr>
<td>meltwater stream</td>
<td>166, 175, 244</td>
</tr>
<tr>
<td>sediments</td>
<td>171</td>
</tr>
<tr>
<td>suspended sediment</td>
<td>166, 179</td>
</tr>
<tr>
<td>terraces</td>
<td>179</td>
</tr>
<tr>
<td>rock desert</td>
<td>210</td>
</tr>
<tr>
<td>rock glacier</td>
<td>156, 157, 161–162</td>
</tr>
<tr>
<td>rock types</td>
<td>35</td>
</tr>
<tr>
<td>andesite</td>
<td>35</td>
</tr>
<tr>
<td>basalt</td>
<td>34, 46, 47, 48, 49</td>
</tr>
<tr>
<td>coal measures</td>
<td>49, 52</td>
</tr>
<tr>
<td>conglomerate</td>
<td>45</td>
</tr>
<tr>
<td>crystalline rocks (undifferentiated)</td>
<td>41</td>
</tr>
<tr>
<td>dolomites</td>
<td>38, 42</td>
</tr>
<tr>
<td>dykes</td>
<td>47</td>
</tr>
<tr>
<td>gabbro</td>
<td>34, 48</td>
</tr>
<tr>
<td>gneiss</td>
<td>36, 37, 40</td>
</tr>
<tr>
<td>granite</td>
<td>35, 36, 42, 45, 48, 169</td>
</tr>
<tr>
<td>limestone</td>
<td>42</td>
</tr>
<tr>
<td>mudstone</td>
<td>43, 46</td>
</tr>
<tr>
<td>Old Red Sandstone</td>
<td>45</td>
</tr>
<tr>
<td>rhyolite</td>
<td>35</td>
</tr>
<tr>
<td>sandstone</td>
<td>43, 45, 46</td>
</tr>
<tr>
<td>schist</td>
<td>36, 40</td>
</tr>
<tr>
<td>tillite</td>
<td>39, 43</td>
</tr>
<tr>
<td>Royal Geographical Society</td>
<td>247</td>
</tr>
<tr>
<td>Russian Fleets</td>
<td>170</td>
</tr>
<tr>
<td>sand dunes</td>
<td>170, b</td>
</tr>
<tr>
<td>scree (‘talus’)</td>
<td>21, 142–143, 152, 155–156, 157–161, 168, 206</td>
</tr>
<tr>
<td>Scott Polar Research Institute fieldwork</td>
<td>244</td>
</tr>
<tr>
<td>Scottish Spitsbergen Syndicate</td>
<td>253</td>
</tr>
<tr>
<td>seas</td>
<td>7–8, 18, 24</td>
</tr>
<tr>
<td>sea ice</td>
<td>114, 115–142, 168, 240</td>
</tr>
<tr>
<td>access through</td>
<td>139–141</td>
</tr>
<tr>
<td>age</td>
<td>134</td>
</tr>
<tr>
<td>distribution</td>
<td>136</td>
</tr>
<tr>
<td>effect of ocean circulation</td>
<td>135–138</td>
</tr>
<tr>
<td>floes</td>
<td>6, 23, 115, 116, 130, 131, 132–133, 137, 138, 265</td>
</tr>
<tr>
<td>freezing of sea water</td>
<td>129</td>
</tr>
<tr>
<td>growth and decay</td>
<td>72, 129–135</td>
</tr>
<tr>
<td>hazards</td>
<td>139, 141</td>
</tr>
<tr>
<td>keels</td>
<td>138</td>
</tr>
<tr>
<td>limit</td>
<td>1</td>
</tr>
<tr>
<td>navigation</td>
<td>134, 140</td>
</tr>
<tr>
<td>pack ice</td>
<td>22, 26, 115, 172, 199, 265</td>
</tr>
<tr>
<td>pressure ridges</td>
<td>130, 134</td>
</tr>
<tr>
<td>reflectivity</td>
<td>137</td>
</tr>
<tr>
<td>response to climate</td>
<td>135–138</td>
</tr>
<tr>
<td>salt content</td>
<td>129, 138</td>
</tr>
<tr>
<td>shorefast ice (last ice)</td>
<td>20, 25, 129, 130, 132, 199, 251</td>
</tr>
<tr>
<td>shrinkage of sea ice area and thickness</td>
<td>265</td>
</tr>
<tr>
<td>Sisuksej</td>
<td>130</td>
</tr>
<tr>
<td>surface travel</td>
<td>141</td>
</tr>
<tr>
<td>stranding of</td>
<td>134, 135</td>
</tr>
<tr>
<td>thickness</td>
<td>129</td>
</tr>
<tr>
<td>trapping vessels</td>
<td>139</td>
</tr>
<tr>
<td>sea-level lowering</td>
<td>173</td>
</tr>
<tr>
<td>sea-level rise</td>
<td>264</td>
</tr>
<tr>
<td>sea temperature</td>
<td>196</td>
</tr>
<tr>
<td>sedimentary basins</td>
<td>46, 48</td>
</tr>
<tr>
<td>ships</td>
<td>Bennet 249</td>
</tr>
<tr>
<td>Erebus</td>
<td>140, 236</td>
</tr>
<tr>
<td>Fram</td>
<td>135, 238, 240</td>
</tr>
<tr>
<td>Henrietta</td>
<td>249</td>
</tr>
<tr>
<td>James Clark Ross</td>
<td>134</td>
</tr>
<tr>
<td>Jeanette</td>
<td>238, 249</td>
</tr>
<tr>
<td>Nordasjøen</td>
<td>228–229</td>
</tr>
<tr>
<td>PORSKo</td>
<td>129</td>
</tr>
<tr>
<td>Taymyr</td>
<td>236</td>
</tr>
<tr>
<td>Terror</td>
<td>140, 236</td>
</tr>
<tr>
<td>Titanic</td>
<td>125</td>
</tr>
<tr>
<td>Windward</td>
<td>238</td>
</tr>
<tr>
<td>Sirius Patrol</td>
<td>30–31</td>
</tr>
<tr>
<td>shorelines</td>
<td>171–175</td>
</tr>
<tr>
<td>snow-pack community</td>
<td>210</td>
</tr>
<tr>
<td>snow swamps</td>
<td>244</td>
</tr>
<tr>
<td>soils</td>
<td>207, 210</td>
</tr>
<tr>
<td>South Pole</td>
<td>239</td>
</tr>
<tr>
<td>spits</td>
<td>171</td>
</tr>
<tr>
<td>steam locomotive</td>
<td>254–255</td>
</tr>
<tr>
<td>Store Norsk Spitsbergen Kullcompani</td>
<td>147, 257</td>
</tr>
<tr>
<td>strandflats</td>
<td>18, 172, 173</td>
</tr>
<tr>
<td>submarines, nuclear</td>
<td>251</td>
</tr>
<tr>
<td>sunset</td>
<td>266</td>
</tr>
<tr>
<td>Sysselmann</td>
<td>242</td>
</tr>
<tr>
<td>talus, see scree</td>
<td></td>
</tr>
<tr>
<td>thermal expansion of the oceans</td>
<td>264</td>
</tr>
<tr>
<td>Tuborg Brewery</td>
<td>249</td>
</tr>
<tr>
<td>Trans-Siberian Railway</td>
<td>143</td>
</tr>
<tr>
<td>tundra</td>
<td>1, 15, 143, 160, 207–225</td>
</tr>
<tr>
<td>tundra grasslands</td>
<td>210</td>
</tr>
<tr>
<td>Twelfth Missile Warning Group</td>
<td>251</td>
</tr>
<tr>
<td>uplift curves</td>
<td>174</td>
</tr>
<tr>
<td>volcanic activity</td>
<td>48</td>
</tr>
<tr>
<td>volcano</td>
<td>20</td>
</tr>
<tr>
<td>wave action</td>
<td>171</td>
</tr>
<tr>
<td>weather</td>
<td>55–60</td>
</tr>
<tr>
<td>anticyclonic (high pressure)</td>
<td>61, 62</td>
</tr>
<tr>
<td>blizzards (snow storms)</td>
<td>56, 65, 71, 72</td>
</tr>
<tr>
<td>cloud growth</td>
<td>22</td>
</tr>
<tr>
<td>fog</td>
<td>56, 121</td>
</tr>
<tr>
<td>hoggback clouds</td>
<td>69</td>
</tr>
<tr>
<td>low cloud</td>
<td>58</td>
</tr>
<tr>
<td>meteorological observations</td>
<td>68</td>
</tr>
</tbody>
</table>
### Subject index

| weather (cont.) | snowmelt 60 | wetlands 212, 213 |
| meteorological (weather) stations | snow storms 56 | wilderness areas 257 |
| 62, 63, 66, 67, 70, 189–190 | water sky 64 | wind action 170 |
| precipitation 68 | white-out 62 | wind-chill 60 |
| rapid change 62 | weathering 152–159 | wind scoop 57 |
| seasons 60–61 | biological 155 | World War I 240 |
| solar radiation 60, 72, 137, 211 | frost-shattering 152, 159 | World War II 63, 70, 250 |
| snowfall 68 | thermal stress fatigue 152, 155 | |