

CV and recent publications, Christian Brochmann (born March 16, 1953)

Current position: Professor (1996-), Natural History Museum (NHM), University of Oslo, PO Box 1172 Blindern, NO-0318 Oslo, Norway; phone +47 22851611; fax +47 22851835; email christian.brochmann@nhm.uio.no; <http://www.nhm.uio.no/english/research/groups/pet/>

Honours, prizes: *The Research Prize of University of Oslo* (2009); Elected member, *Norwegian Academy of Science and Letters* (2004-); 'Best lecturer in basic biology', University of Oslo ('Den Gyldne Pekestokk', 2000); *NCB Special Prize* (2011).

Education: 1992, Dr. philos., Univ. Oslo.

Main research stays abroad: 1989 and 1993, Washington State University, USA (hosts DE & PS Soltis); 2012, University of Grenoble, France (hosts E Coissac & P Taberlet).

Research interests: Molecular systematics incl. biogeography and evolutionary processes at low taxonomic levels, focus on arctic and alpine regions. Speciation, comparative phylogeography, metabarcoding of modern and ancient DNA, polyploid evolution, long-distance dispersal.

Research group: Current: 1 researcher (Nowak), 1 postdoc (Gustafsson), 1 guest researcher (Gussarova), 1 engineer (Gizaw), 3 PhD students (Birkeland, Chala, Mugizi). Previous: 12 postdocs (Alsos, Bellemain, Boessenkool, Brysting, Ehrich, Epp, Gabrielsen, Gizaw, Gussarova, Nowak, Popp, Sønstebø), 18 completed PhDs (Alsos, Assefa, Carlsen, Eidesen, Fjellheim, Gabrielsen, Gizaw, Grundt, Gustafsson, Hou, Kapralov, Kebede, Masao, Skrede, Solstad, Tollefsrud, Westergaard, Wondimu), 17 completed Masters. Visiting scientists (2-24 months): Elvinger, Luxembourg; Geml, USA; Gussarova, Russia; Jimenez, Spain; Listl, Germany; Mikhaylova, Russia; Obermayer, Austria; Parisod, Switzerland; Pimentel, Spain; Pineiro, Spain; Popp, Sweden; Sannier, France; Schönswetter, Austria; Tribsch, Austria; Vilatersana, Spain; Volkova, Russia; Vrancken, Belgium.

Variou: Initiating and leading National Centre for Biosystematics (NCB) at Univ. Oslo involving 40-60 people per year (2001-2010); Initiating and leading Norwegian-Swedish Research School in Biosystematics (2009-2011); Member of the Council for IOPB (International Organization for Plant Biosystematists, 2008-2016); Chair (2004-2008) and member (2003-2004) of the Board for the Biodiversity Research Programme at the Research Council of Norway; Member of expert evaluation panel for the EU BiodivERsA call (2008); Member of four expert evaluation panels at Academy of Finland (2001, 2004, 2011) and one at Swedish Research Council (2009); Member of the National Committee for Development of Biological Sciences in Norway ('Biofagplanutvalget', 2002-2003); Member of the National committee for evaluation of professor competence in biology (2009-2016); Opponent/reviewer at PhD defenses in Grenoble, Vienna, Zürich (x2), Bratislava, Cluj, Copenhagen, Lund, Uppsala (x3), Trondheim. Member of Editorial Boards of five international journals.

Invited talks accepted since 2004: 2013 Oxford, U.K.; Mainz, Germany; 2012 Pinsot, France; 2011 Palmse, Estonia; Melbourne, Australia; Miranda, Venezuela; Trondheim, Norway; 2010 Ås, Norway; Oslo, Norway; 2008 Bonn, Germany; Göttingen, Germany; Vysoke, Slovakia; Neuchatel, Switzerland; Trondheim, Norway; 2007 St Andrews, UK; Lund, Sweden; Trondheim, Norway; Ås, Norway; 2006 Zürich, Switzerland; Trondheim, Norway; Basel, Switzerland; 2005 Vienna, Austria; Uppsala, Sweden; Oslo, Norway; 2004 Amsterdam, The Netherlands; Addis Ababa, Ethiopia; Ås, Norway; Zürich, Switzerland; Regensburg, Germany; Kiel, Germany.

Major external grants as PI since 2002:

2015-2018: 9.0 mill NOK (Res. Council Norway, FRIMEDBIO 240223/F20): 'High speciation rates in Arctic plants: genomic mechanisms and relevance to the latitudinal diversity gradient'

2009-2013: 9.5 mill NOK (Res. Council Norway, FRIBIO 191627/V40): 'BarFrost – Reconstruction of past ecosystems by barcoding DNA preserved in permafrost'

2010-2011: 5.3 mill NOK (Res. Council Norway 199713/V20 and Norwegian Biodiversity Information Centre): 'ForBio – Norwegian-Swedish Research School in Biosystematics 2010-2020: Preproject 2010-2011'

- 2007-2012: 3.0 mill NOK (partner EC Integrated Project FRP6 036866-2, coordinated by P. Taberlet, Grenoble): '*ECOCHANGE: Challenges in assessing and forecasting biodiversity and ecosystem changes in Europe*'
- 2007-2012: 6.0 mill NOK (NUFU Norway 2007/10058): '*AFROALP-II – Afro-alpine 'sky islands': genetic versus taxonomic biodiversity, climate change, and conservation*'
- 2006-2010: 4.8 mill NOK (Res. Council Norway, FRIBIOØKO 170952/V40): '*SURV-ICE – Did vascular plants and bryophytes survive the last ice age in Scandinavia?*'
- 2003-2007: 3.2 mill NOK (NUFU Norway 1127): '*AFROALP - Afroalpine islands as natural laboratories: dynamics and units of plant biodiversity*'.
- 2002-2006: 36.2 mill NOK (13.1 mill from Res. Council Norway, Strategic University Program 146515/420, and 23.1 mill from host inst. (NHM): '*National Centre for Biosystematics*'.
- 2002-2006: 6.2 mill NOK (Res. Council Norway, NorKlima 150322/720): '*Effects of climate change on ecosystems in Svalbard: past and future immigration of thermophilous key species*'.

Publications: ~120 papers in Web of Science Core journals (including *Nature* (2014; one article as senior author), *Science* (2007 and 2012; one as senior author), *PNAS* (2006 and 2011; both as senior author), *Systematic Biology*, *Proceedings of the Royal Society B*, *New Phytologist*, *Nucleic Acids Research*, *Evolution*, *Molecular Ecology*). H-index 41, total citations 5579, average 45 (Web of Science Core).

Most-cited papers (Web of Science Core)

- Bonin A, Bellemain E, Eidesen PB, Pompanon F, Brochmann C, Taberlet P 2004. How to track and assess genotyping errors in population genetics studies. *Molecular Ecology* 13: 3261-3273 (731 citations)
- Abbott RJ, Brochmann C 2003. History and evolution of the arctic flora: in the footsteps of Eric Hultén. *Molecular Ecology* 12: 299-313 (246 citations).
- Brochmann C, Brysting AK, Alsos IG, Borgen L, Grundt HH, Scheen A-C, Elven R 2004. Polyploidy in arctic plants. *Biological Journal of the Linnean Society* 82: 521-536 (222 citations).
- Taberlet P, Coissac E, Pompanon F, Gielly L, Miquel C, Valentini A, Vermat T, Corthier G, Brochmann C, Willerslev E 2007. Power and limitations of the chloroplast *trnL*(UAA) intron for plant DNA barcoding. *Nucleic Acids Research* 35, e14: 1-8 (190 citations).
- Alsos IG, Eidesen PB, Ehrich D, Skrede I, Westergaard K, Jacobsen GH, Landvik JY, Taberlet P, Brochmann C 2007. Frequent long-distance plant colonization in the changing Arctic. *Science* 316: 1606-1609 (160 citations).
- Brochmann C, Gabrielsen TM, Nordal I, Landvik JY, Elven R 2003. Glacial survival or *tabula rasa*? The history of North Atlantic biota revisited. *Taxon* 52: 417-450 (157 citations).
- Parisod C, Holderegger R, Brochmann C 2010. Evolutionary consequences of autopolyploidy. *New Phytologist* 186: 5-17 (156 citations).
- Gabrielsen TM, Bachmann K, Jakobsen KS, Brochmann C 1997. Glacial survival does not matter: RAPD phylogeography of Nordic *Saxifraga oppositifolia*. *Molecular Ecology* 6: 831-842 (147 citations).

Peer-reviewed publications since 2012

- Gizaw A, Brochmann C, Nemomissa S, Wondimu T, Masao CA, Tusiime FM, Abdi AA, Oxelman B, Popp M, Dimitrov D. Colonisation and diversification in the African 'sky islands': insights from fossil-calibrated molecular dating of *Lychmis* L. (Caryophyllaceae) (in revision).
- Gebremedhin B, Flagstad Ø, Bekele A, Chala D, Bakkestuen V, Boessenkool S, Popp M, Gussarova G, Schröder-Nielsen A, Nemomissa S, Brochmann C, Stenseth NC, Epp LS. DNA metabarcoding suggests that the endangered Walia ibex is affected by diet competition with domestic goats (submitted).
- Gizaw A, Wondimu T, Mugizi TF, Masao CA, Abdi AA, Popp M, Ehrich D, Nemomissa S, Brochmann C. Speciation, dispersal, hybridization and isolation in the afro-alpine sky archipelago: *Carex monostachya* and *C. runssoroensis* (Cyperaceae) (in revision).
- Gustafsson ALS, Gussarova G, Borgen L, Ikeda H, Antonelli A, Mayrose I, Karin EL, Suda J, Rieseberg LH, Brochmann C. High speciation rates in the arctic flora (in revision).
- Ikeda H, Gustafsson ALS, Brochmann C, Setoguchi H. Pre-speciation origin of selective divergence and balancing selection in a plant photoreceptor gene, phytochrome E (in revision).
- Wondimu T, Brochmann C, Popp M, Gizaw A, Tusiime FM, Masao CA, Abdi AA, Bjorå CS, Mirré V, Nemomissa S. Twice into the African 'sky islands' from the Himalayas followed by rapid radiations: evidence from plastid and nuclear ribosomal DNA variation in *Swertia* L. (Gentianaceae) (in revision).
- Kyrkjeeide MO, Hassel K, Flatberg KI, Shaw AJ, Brochmann C, Stenøien HK. Long-distance dispersal and barriers shape genetic structure of peatmosses (*Sphagnum*) across the Northern Hemisphere. *Journal of Biogeography* (accepted).
- Hou Y, Bjorå CS, Ikeda H, Brochmann C, Popp M. From the north into the Himalayan-Hengduan Mountains: fossil-calibrated phylogenetic and biogeographic inference in the arctic-alpine genus *Diapensia* (Diapensiaceae). *Journal of Biogeography* (accepted).
- Stewart L, Alsos IG, Bay C, Breen AL, Brochmann C, Boulanger-Lapointe N, Broennimann O, Bültmann H, Bøcher PK, Damgaard CF, Daniëls FJA, Ehrich D, Eidesen PB, Guisan A, Jónsdóttir IS, Lenoir J, le Roux PC, Lévesque E, Luoto M, Nabe-Nielsen J, Schönswetter P, Tribsch A, Tveraabak LU, Virtanen R, Walker DA, Westergaard KB, Yoccoz NG, Svenning J-C, Wisz M, Schmidt NM, Pellissier L. Regional species richness and genetic diversity of arctic vegetation reflect both past glaciations and current climate. *Global Ecology and Biogeography* (accepted).
- Pellissier L*, Eidesen PB*, Ehrich D, Descombes P, Schönswetter P, Tribsch A, Westergaard KB, Alvarez N, Guisan A, Zimmermann NE, Normand S, Vittoz P, Luoto M, Damgaard C, Brochmann C**, Wisz MS**, Alsos IG** (* joint first authors; **joint senior authors) 2015. Past climate-driven range shifts and population genetic diversity in arctic plants. *Journal of Biogeography* (online).
- Hou Y, Nowak MD, Mirré V, Bjorå CS, Brochmann C, Popp M 2015. RAD-seq data point to a northern origin of the arctic-alpine genus *Cassiope* (Ericaceae). *Molecular Phylogenetics and Evolution* 95 (2016): 152-160.

- Hou Y, Nowak MD, Mirré V, BJORÅ CS, Brochmann C, Popp M 2015. Thousands of RADseq loci fully resolve the phylogeny of the highly disjunct arctic-alpine genus *Diapensia* (Diapensiaceae). *PLoS ONE* 10(10): e0140175. doi:10.1371/journal.pone.0140175
- Eidesen PB, Alsos IG, Brochmann C 2015. Comparative analyses of plastid and AFLP data suggest different colonization history and asymmetric hybridization between *Betula pubescens* and *B. nana*. *Molecular Ecology* 24: 3993–4009.
- Gussarova G, Allen GA, Mikhaylova Y, McCormick LJ, Mirré V, Marr KL, Hebda RJ, Brochmann C 2015. Vicariance, long-distance dispersal, and regional extinction-recolonization dynamics explain the disjunct circumpolar distribution of the arctic-alpine plant *Silene acaulis*. *American Journal of Botany* 102: 1703–1720.
- Paus A, Boessenkool S, Brochmann C, Epp LS, Fabel D, Hafliðason H, Linge H 2015. Lake Store Finnsjøen - a key for understanding Lateglacial/early Holocene vegetation and ice sheet dynamics in the central Scandes Mountains. *Quaternary Science Reviews* 121: 36–51.
- Epp LS, Gussarova G, Boessenkool S, Olsen J, Haile J, Schröder-Nielsen A, Ludikova A, Hassel K, Stenøien HK, Funder S, Willerslev E, Kjær K, Brochmann C 2015. Lake sediment multi-taxon DNA from North Greenland records early post-glacial appearance of vascular plants and accurately tracks environmental changes. *Quaternary Science Reviews* 117: 152–163.
- Ikeda H, Yoneta Y, Higashi H, Eidesen PB, Barkalov V, Yakubov V, Brochmann C, Setoguchi H 2015. Persistent history of the bird-dispersed arctic-alpine plant *Vaccinium vitis-idaea* L. (Ericaceae) in Japan. *Journal of Plant Research* 128: 437–444.
- Alsos IG, Ehrich D, Eidesen PB, Solstad H, Westergaard KB, Schönswetter P, Tribsch A, Birkeland S, Elven R, Brochmann C 2015. Long-distance plant dispersal to North Atlantic islands: colonization routes and founder effect. *AOB Plants* doi: 10.1093/aobpla/plv036
- Tollefsrud MM, Latalowa M, van der Knaap WO, Brochmann C, Sperisen C 2015. Late Quaternary history of North Eurasian Norway spruce (*Picea abies*) and Siberian spruce (*Picea obovata*) inferred from macrofossils, pollen and cytoplasmic DNA variation. *Journal of Biogeography* 42: 1431–1442.
- Soininen EM, Gauthier G, Bilodeau F, Berteaux D, Gielly L, Taberlet P, Gussarova G, Bellemain E, Hassel K, Stenøien HK, Epp L, Schröder-Nielsen A, Brochmann C, Yoccoz NG. 2015. Highly overlapping winter diet in two sympatric lemming species revealed by DNA metabarcoding. *PLoS ONE* 10(1): e0115335. doi:10.1371/journal.pone.0115335
- Soininen EM, Ehrich D, Lecomte N, Yoccoz NG, Tarroux A, Berteaux D, Gauthier G, Gielly L, Brochmann C, Gussarova G, Ims RA 2014. Sources of variation in small rodent trophic niche: new insights from DNA metabarcoding and stable isotope analysis. *Isotopes in Environmental and Health Studies* 50:3, 361–381, DOI: 10.1080/10256016.2014.915824
- Gustafsson ALS, Skrede I, Rowe HC, Gussarova G, Borgen L, Rieseberg LH, Brochmann C, Parisod C 2014. Genetics of cryptic speciation within an arctic mustard, *Draba nivalis*. *PLoS ONE* 9: e93834. doi:10.1371/journal.pone.0093834.
- Willerslev E*, Davison J*, Moora M*, Zobel M*, Coissac E*, Edwards ME*, Lorenzen ED*, Vestergård M*, **Gussarova G***, Haile J*, Craine J, Gielly L, **Boessenkool S**, **Epp LS**, Pearman PB, Cheddadi R, Murray D, Bräthen KA, Yoccoz N, Binney H, Cruaud C, Wincker P, Goslar T, **Alsos IG**, **Bellemain E**, **Brvsting AK**, **Elven R**, **Sønstebø JH**, Murton J, Sher A, Rasmussen M, Rønn R, Mourier T, Cooper A, Austin J, Möller P, Froese D, Zazula G, Pompanon F, Rioux D, Niderkorn V, Tikhonov A, Savvinov G, Roberts RG, MacPhee RDE, Gilbert MTP, Kjær KH, Orlando L, **Brochmann C****, Taberlet P** 2014 (* joint first authors; **joint senior authors; Brochmann group members in bold). Fifty thousand years of Arctic vegetation and megafaunal diet. *Nature* 506: 47–51 (article).
- Wondimu T, Gizaw A, Tusiime FM, Masao CA, Abdi AA, Gussarova G, Popp M, Nemomissa S, Brochmann C 2014. Crossing barriers in an extremely fragmented system: two case studies in the afro-alpine sky island flora. *Plant Systematics and Evolution* 300: 415–430. DOI 10.1007/s00606-013-0892-9
- Boessenkool S, McGlynn G, Epp L, Taylor D, Pimentel M, Gizaw A, Nemomissa S, Brochmann C, Popp M 2014. Use of ancient sedimentary DNA as a novel conservation tool for high-altitude tropical biodiversity. *Conservation Biology* 28: 446–455.
- Eidesen PB, Ehrich D, Bakkestuen V, Alsos IG, Gilg O, Taberlet P, Brochmann C 2013. Genetic roadmap of the Arctic: plant dispersal highways, traffic barriers and capitals of diversity. *New Phytologist* 200: 898–910. doi: 10.1111/nph.12412
- Pimentel M, Sahuquillo E, Torrecilla Z, Popp M, Catalán P, Brochmann C 2013. Hybridization and long-distance colonization at different time scales: towards resolution of long-term controversies in the sweet vernal grasses (*Anthoxanthum*). *Annals of Botany* 112: 1015–1030. doi:10.1093/aob/mct170
- Masao CA, Gizaw A, Piñero R, Tusiime FM, Wondimu T, Ahmed AA, Popp M, Gussarova G, Lye KA, Munishi P, *Nemomissa S**, *Brochmann C** (* shared senior authors) 2013. Phylogeographic history and taxonomy of some afro-alpine grasses assessed based on AFLPs and morphometry: *Deschampsia cespitosa*, *D. angusta* and *Koeleria capensis*. *Alpine Botany* 123: 107–122. DOI 10.1007/s00035-013-0119-2
- Gizaw A, Kebede M, Nemomissa S, Ehrich D, Bekele B, Mirré V, Popp M, Brochmann C 2013. Phylogeography of the heathers *Erica arborea* and *E. trimeria* in the afro-alpine 'sky islands' inferred from AFLPs and plastid DNA sequences. *Flora* 208: 453–463.
- Soininen EM, Zinger L, Gielly L, Bellemain E, Bräthen KA, Brochmann C, Epp LS, Gussarova G, Hassel K, Henden J-A, Killengren ST, Rämä T, Stenøien HK, Yoccoz NG, Ims RA 2013. Shedding new light on the diet of Norwegian lemmings: DNA metabarcoding of stomach content. *Polar Biology* 36: 1069–1076. DOI 10.1007/s00300-013-1328-2.
- Cook JA, Brochmann C, Talbot SL, Fedorov VB, Taylor EB, Väinölä R, Hoberg EP, Kholodova M, Magnusson KP, Mustonen T 2013. Genetics. Pp 459–483 in Meltofte H (ed.). *Arctic Biodiversity Assessment. Status and Trends in Arctic Biodiversity*. Conservation of Arctic Flora and Fauna, Akureyri.
- Bellemain E, Davey ML, Kauserud H, Epp LS, Boessenkool S, Coissac E, Geml J, Edwards ME, Willerslev E, Gussarova G, Taberlet P, Haile J, Brochmann C 2013. Fungal palaeodiversity revealed using high-throughput metabarcoding of ancient DNA from arctic permafrost. *Environmental Microbiology* 15: 1176–1189.
- Brochmann C, Edwards ME, Alsos IG 2013. The dynamic past and future of arctic plants: climate change, spatial variation, and genetic diversity. In: Rohde K (ed.). *The Balance of Nature and Human Impact*. Cambridge University Press. Pp 133–152.
- Jiménez-Mejías P, Luceño M, Lye KA, Brochmann C, Gussarova G 2012. Genetically diverse but with surprisingly little geographical structure: the complex history of the widespread herb *Carex nigra* (Cyperaceae). *Journal of Biogeography* 39: 2279–2291.
- Piñero R, Popp M, Hassel K, Listl D, Westergaard KB, Flatberg KI, Stenøien HK, Brochmann C 2012. Circumarctic dispersal and long-distance colonization of South America: the moss genus *Cinclidium*. *Journal of Biogeography* 39: 2041–2051.
- Yoccoz NG, Bräthen KA, Gielly L, Haile J, Edwards ME, Goslar T, von Stedingk H, Brvsting AK, Coissac E, Pompanon F, Sønstebø JH, Miquel C, Valentini A, de Bello F, Chave J, Thuiller W, Wincker P, Cruaud C, Gavory F, Rasmussen M, Gilbert MTP, Orlando L, *Brochmann C*, *Willerslev E*, *Taberlet P* (* joint senior authorship) 2012. DNA from soil mirrors plant taxonomic and growth form diversity. *Molecular Ecology* 21: 3647–3655 (with *Perspective, Mol. Ecol.* 21: 3637–3639).
- Vrancken J, Brochmann C, Wesselingh RA 2012. A European phylogeography of *Rhinanthus minor* compared to *Rhinanthus angustifolius*: unexpected splits and signs of hybridization. *Ecology and Evolution* doi: 10.1002/ece3.276.
- Demissew S, Brochmann C, Kelbessa E, Friis I, Nordal I, Nemomissa S, Woldemariam T, Bekele T, Asfaw Z, Woldu Z 2012. The Ethiopian Flora Project: a springboard to other projects. *Symbolae Botanicae Upsalensis* 35(2): 189–215.
- Ikeda H, Carlsen T, Fujii N, Brochmann C, Setoguchi H 2012. Pleistocene climatic oscillations and the speciation history of an alpine endemic and a widespread arctic-alpine plant. *New Phytologist* 194: 583–594.
- Epp LS, Boessenkool S, Bellemain EP, Haile J, Esposito A, Riaz T, Erséus C, Gusarov V, Edwards ME, Johnsen A, Stenøien HK, Hassel K, Kauserud H, Yoccoz NG, Bräthen KA, Willerslev E, Taberlet P, *Coissac E*, *Brochmann C* (*joint senior authorship) 2012. New environmental metabarcodes for analysing soil DNA: potential for studying past and present ecosystems. *Molecular Ecology* 21: 1821–1833.

- Geml J, Kauff F, Brochmann C, Lutzoni F, Laursen GA, Redhead SA, Taylor DL 2012. Frequent circumarctic and rare transequatorial dispersals in the lichenized agaric genus *Lichenomphalia* (Hygrophoraceae, Basidiomycota). *Fungal Biology* 116: 388-400.
- Taberlet P, Coissac E, Pompanon F, Brochmann C, Willerslev E 2012. Towards next-generation biodiversity assessment using DNA metabarcoding. *Molecular Ecology* 21: 2045–2050.
- Alsos IG, Ehrlich D, Thuiller W, Eidesen PB, Tribsch A, Schönswetter P, Lagaye C, Taberlet P, Brochmann C 2012. Genetic consequences of climate change for northern plants. *Proceedings of the Royal Society B Biological Sciences* 279: 2042-2051.
- Gussarova G, Alsos IG, Brochmann C 2012. Annual plants colonizing the Arctic? Phylogeography and genetic variation in the *Euphrasia minima* complex (Orobanchaceae). *Taxon* 61: 146–160.
- Jørgensen T, Kjær KH, Haile J, Rasmussen M, Boessenkool S, Andersen K, Coissac E, Taberlet P, Brochmann C, Orlando L, Gilbert MTP, Willerslev E 2012. Islands in the ice: detecting past vegetation on Greenlandic nunataks using historical records and sedimentary ancient DNA meta-barcoding. *Molecular Ecology* 21: 1980–1988.
- Jørgensen T, Haile J, Möller P, Andreev A, Boessenkool S, Rasmussen M, Kienast F, Coissac E, Taberlet P, Brochmann C, Bigelow NH, Andersen K, Orlando L, Gilbert MTP, Willerslev E 2012. A comparative study of ancient sedimentary DNA, pollen and macrofossils from permafrost sediments of northern Siberia reveals long-term vegetational stability. *Molecular Ecology* 21: 1989–2003.
- Boessenkool S, Epp LS, Haile J, Bellemain E, Edwards M, Coissac E, Willerslev E, Brochmann C 2012. Blocking human contaminant DNA during PCR allows amplification of rare mammal species from sedimentary ancient DNA. *Molecular Ecology* 21: 1806–1815.
- Geml J, Timling I, Robinson CH, Lennon N, Nusbaum HC, Brochmann C, Noordeloos ME, Taylor DL 2012. An arctic community of symbiotic fungi assembled by long-distance dispersers: phylogenetic diversity of ectomycorrhizal basidiomycetes in Svalbard based on soil and sporocarp DNA. *Journal of Biogeography* 39: 74-88.
- Parducci L, Jørgensen T, Tollefsrud MM, Elverland E, Alm T, Fontana SL, Bennett KD, Haile J, Matetovici I, Suyama Y, Edwards ME, Andersen K, Rasmussen M, Boessenkool S, Coissac E, Brochmann C, Taberlet P, Houmark-Nielsen M, Larsen NK, Orlando L, Gilbert MTP, Kjær KH, Alsos IG, Willerslev E 2012. Glacial survival of boreal trees in northern Scandinavia. *Science* 335: 1083-1086.

Monograph

- Brochmann C, Rustan ØH, Lobin W, Kilian N 1997. *The endemic vascular plants of the Cape Verde Islands, W Africa*. *Sommerfeltia* 24: 1-356.

Selected earlier publications (see also most-cited papers above)

- Popp M, Mirré V, Brochmann C 2011. A single Mid-Pleistocene long-distance dispersal by a bird can explain the extreme bipolar disjunction in crowberries (*Empetrum*). *PNAS (Proceedings of the National Academy of Sciences of the United States of America)* 108: 6520-6525 (with *Commentary by MJ Donoghue, Bipolar biogeography, pp 6341-6342*).
- Westergaard KB, Alsos IG, Popp M, Engelskjøn T, Flatberg KI, Brochmann C 2011. Glacial survival may matter after all: nunatak signatures in the rare European populations of two west-arctic species. *Molecular Ecology* 20: 376-393 (with *Perspective, Mol. Ecol. 20: 190-192*).
- Bellemain E, Carlsen T, Brochmann C, Coissac E, Taberlet P, Kausserud H 2010. ITS as an environmental DNA barcode for fungi: an *in silico* approach reveals potential PCR biases. *BMC Microbiology* 10: 189 doi:10.1186/1471-2180-10-189 (9 p).
- Sønstebø JH, Gielly L, Brysting AK, Elven R, Edwards M, Haile J, Willerslev E, Coissac E, Rioux D, Sannier J, Taberlet P, Brochmann C 2010. Using next-generation sequencing for molecular reconstruction of past arctic vegetation and climate. *Molecular Ecology Resources* 10: 1009-1018.
- Carlsen T, Bleeker W, Hurka H, Elven R, Brochmann C 2009. Biogeography and phylogeny of *Cardamine* (Brassicaceae). *Annals of the Missouri Botanical Garden* 96: 215–236.
- Alsos IG, Alm T, Normand S, Brochmann C 2009. Past and future range shifts and loss of diversity in dwarf willow (*Salix herbacea* L.) inferred from genetics, fossils, and modelling. *Global Ecology and Biogeography* 18: 223-239.
- Brochmann C, Brysting AK 2008. The Arctic – an evolutionary freezer? *Plant Ecology & Diversity* 1: 181-195.
- Skrede I, Brochmann C, Borgen L, Rieseberg LH 2008. Genetics of intrinsic postzygotic isolation in a circumpolar plant species, *Draba nivalis* (Brassicaceae). *Evolution* 62: 1840-1851.
- Popp M, Gizaw A, Nemomissa S, Suda J, Brochmann C 2008. Colonization and diversification in the African ‘sky islands’ by Eurasian *Lychnis* L. (Caryophyllaceae). *Journal of Biogeography* 35: 1016-1029.
- Brysting AK, Oxelman B, Huber KT, Moulton V, Brochmann C 2007. Untangling complex histories of genome mergings in high polyploids. *Systematic Biology* 56: 467-476.
- Ehrlich D, Gaudeul M, Assefa A, Koch MA, Mummenhoff K, Nemomissa S, IntraBioDiv Consortium, Brochmann C 2007. Genetic consequences of Pleistocene range shifts: contrast between the Arctic, the Alps and the East African mountains. *Molecular Ecology* 16: 2542-2559.
- Grundt HH, Kjølner S, Borgen L, Rieseberg LH, Brochmann C 2006. High biological species diversity in the arctic flora. *PNAS* 103: 972-975.
- Brochmann C, Borgen L, Stabbertorp OE 2000. Multiple diploid hybrid speciation of the Canary Island endemic *Argyranthemum sundingii* (Asteraceae). *Plant Systematics and Evolution* 220: 77-92.
- Brochmann C, Soltis PS, Soltis DE 1992. Recurrent formation and polyphyly of Nordic polyploids in *Draba* (Brassicaceae). *American Journal of Botany* 79: 673-688.