

## Publications

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### Publications in peer-reviewed journals

#### 2018

1. Ibanez, T.\*<sup>1</sup>, Keppel, G.\*, Baider, C., Birkinshaw, C., **Culmsee, H.**, Cordell, S., Florens, V., Franklin, J., Giardina, C., Gillespie, T., Laidlaw, M., Litton, C., Martin, T., Ostertag, R., Parthasarathy, N., Randrianaivo, R., Randrianjanahary, M., Rajkumar, M., Rasingam, L., Ratovoson, F., Reza, L., Sack, L., Aiba, S.I., Webb, E., Whitfeld, T., Zang, R., Birnbaum, P., 2018. Regional forcing explains local species diversity and turnover on tropical islands. *Global Ecology and Biogeography*. Article DOI: 10.1111/geb.12712
2. Slik, J.W.F.\* et al. (184 co-authors in alphabetical order, including Culmsee, H.), 2018. Phylogenetic classification of the world's tropical forests. *Proceedings of the National Academy of Sciences of the United States of America*, [www.pnas.org/cgi/doi/10.1073/pnas.1714977115](http://www.pnas.org/cgi/doi/10.1073/pnas.1714977115).

#### 2017

3. Brambach, F., Leuschner, C., Tjoa, A., **Culmsee, H.**, 2017. Diversity, endemism, and composition of tropical mountain forest communities in Sulawesi, Indonesia, in relation to elevation and soil properties. *Perspectives in Plant Ecology, Evolution and Systematics*, 27: 68-79.
4. Brambach, F., Byng, J.W., **Culmsee, H.**, 2017. Five new species of *Syzygium* (Myrtaceae) from Sulawesi, Indonesia. *PhytoKeys*, 81: 47-78.

#### 2016

5. Brambach, F.\*, Coode, M., Biagioni, S., **Culmsee, H.**, 2016. *Elaeocarpus firdausii* (Elaeocarpaceae), a new species from tropical mountain forests of Sulawesi. *PhytoKeys*, 62: 1-14.
6. Schmiedel, I.\*, **Culmsee, H.**, 2016. The influence of landscape fragmentation, expressed by the 'Effective Mesh Size Index', on regional patterns of vascular plant species richness in Lower Saxony, Germany. *Landscape and Urban Planning*, 153: 209-220.

#### 2015

7. **Culmsee, H.\***, Denstorf, H.O., Mann, P., Schmid, L., 2015. Wälder des Nationalen Naturerbes. *Natur und Landschaft*, 90 (3): 117-123.

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<sup>1</sup> Asterisks (\*) indicate the corresponding author(s) of articles in peer-reviewed journal.

8. Krause, B.\* , **Culmsee, H.**, Wesche, K., Leuschner, C. Historical and recent fragmentation of temperate floodplain grasslands: Do patch size and distance affect the richness of characteristic wet meadow plant species? *Folia Geobotanica*, 50: 253-266.
9. Schmiedel, I.\* , Bergmeier, E., **Culmsee, H.**, 2015. Plant species richness patterns along a gradient of landscape modification intensity in Lower Saxony, Germany. *Landscape and Urban Planning*, 141: 41-51.
10. Seifert, C.\* , Leuschner, C., **Culmsee, H.**, 2015. Arable plant diversity on conventional cropland – The role of crop species, management and environment. *Agriculture, Ecosystems and Environment*, 213: 151-163.
11. Slik, J.W.F.\* et al. (172 co-authors in alphabetical order, including **Culmsee, H.**), 2015. An estimate of the number of tropical tree species. *Proceedings of the National Academy of Sciences of the United States of America*, 112 (24): 7472-7477. DOI: 10.1073/pnas.1423147112.

#### 2014

12. **Culmsee, H.\***, Schmidt, M., Schmiedel, I., Schacherer, A., Meyer, P., Leuschner, C., 2014. Predicting the distribution of forest habitat types using indicator species to facilitate systematic conservation planning. *Ecological Indicators*, 37: 131-144.
13. Krause, B.\* , Wesche, K., **Culmsee, H.**, Leuschner, C., 2014. Diversitätsverluste und floristischer Wandel im Grünland seit 1950. *Natur und Landschaft*, 89 (09/10): 399-404.
14. Schmidt, M., Mölder, A.\* , Schönfelder, E., Engel, F., Schmiedel, I., **Culmsee, H.**, 2014. Determining ancient woodland indicator plants for practical use: A new approach developed in northwest Germany. *Forest Ecology and Management*, 330: 228-239.
15. Seifert, C., Leuschner, C., Meyer, S., **Culmsee, H.\***, 2014. Inter-relationships between crop type, management intensity and light transmissivity in annual crop systems and their effect on farmland plant diversity. *Agriculture, Ecosystems and Environment*, 195: 173-182.

#### 2013

16. Brambach, F.\* , Nooteboom, H.P., **Culmsee, H.**, 2013. *Magnolia sulawesiana* described, and a key to the species of *Magnolia* (Magnoliaceae) occurring in Sulawesi. *Blumea*, 58: 271-276.
17. **Culmsee, H.\***, Leuschner, C., 2013. Consistent patterns of elevational change in tree taxonomic and phylogenetic diversity across Malesian mountain forests. *Journal of Biogeography*, 40: 1997-2010.
18. **Culmsee, H.\***, Wahmhoff, W., 2013. Entwicklung eines leitbildorientierten Monitorings für den Naturschutz auf Flächen des Nationalen Naturerbes. *Natur und Landschaft*, 88: 204-212.
19. Krause, B., **Culmsee, H.\***, 2013. The significance of habitat continuity and current management on the compositional and functional diversity of grasslands in the uplands of Lower Saxony, Germany. *Flora*, 208: 299-311.

20. Leuschner, C.\* , Moser, G., Hertel, D., Erasmi, S., Leitner, D., **Culmsee, H.**, Schuldt, B., Schwendenmann, L., 2013. Conversion of tropical moist forest into cacao agroforest: Consequences for carbon pools and annual C sequestration. *Agroforestry Systems*, 87: 1173-1187.
21. Schmiedel, I.\* , Schmidt, M., Schacherer, A., **Culmsee, H.**, 2013. Die Effektivität von Schutzgebieten für die Erhaltung seltener und gefährdeter Gefäßpflanzenarten. Eine Untersuchung im niedersächsischen Tiefland. *Naturschutz und Landschaftsplanung*, 45: 45-52.

#### 2012

22. Wesche, K.\* , Krause, B., **Culmsee, H.**, Leuschner, C., 2012. Fifty years of change in Central European grassland vegetation: large losses in species richness and animal-pollinated plants. *Biological Conservation*, 150: 76-85.

#### 2011

23. Berg, C.C.\* , **Culmsee, H.\***, 2011. *Ficus schwarzii* redefined and two new species of *Ficus* (Moraceae) from Sulawesi (Indonesia) described. *Blumea*, 56: 265-269.
24. **Culmsee, H.\***, Pitopang, R., Mangopo, H., Sabir, S., 2011. Tree diversity and phytogeographical patterns of tropical high mountain rain forests in Central Sulawesi, Indonesia. *Biodiversity and Conservation*, 20: 1103-1123.
25. Krause, B., **Culmsee, H.\***, Wesche, K., Bergmeier, E., Leuschner, C., 2011. Habitat loss of floodplain meadows in north Germany since the 1950s. *Biodiversity and Conservation*, 20: 2347-2364.
26. Schmiedel, I.\* , Schacherer, A., Hauck, M., Schmidt, M., **Culmsee, H.**, 2011. Verbreitungsmuster der Farn- und Blütenpflanzen in Niedersachsen und Bremen unter Berücksichtigung ihres Einbürgerungsstatus und ihrer Gefährdungssituation. *Tuexenia*, 31: 211-226.

#### 2010

27. **Culmsee, H.\***, Leuschner, C., Moser, G., Pitopang, R., 2010. Forest aboveground biomass along an elevational transect in Sulawesi, Indonesia, and the role of Fagaceae in tropical montane rain forests. *Journal of Biogeography*, 37: 960-974.
28. Gradstein, S.\* , **Culmsee, H.**, 2010. Bryophyte diversity on tree trunks in montane forests of Central Sulawesi, Indonesia. *Tropical Bryology*, 31: 95-105.
29. Zach, A., Schuldt, B.\* , Brix, S., Horna, V., **Culmsee, H.**, Leuschner, C., 2010. Vessel diameter and xylem hydraulic conductivity increase with tree height in tropical rainforest trees in Sulawesi, Indonesia. *Flora*, 205: 506-512.

#### 2009

30. **Culmsee, H.\***, Pitopang, R., 2009. Tree diversity in sub-montane and lower montane primary rain forests in Central Sulawesi. *Blumea*, 54: 119-123.
31. Hertel, D.\* , Moser, G., **Culmsee, H.**, Erasmi, S., Horna, V., Schuldt, B., Leuschner, C., 2009. Below- and above-ground biomass and net primary production in a paleotropical natural forest (Sulawesi, Indonesia) as compared to neotropical forests. *Forest Ecology and Management*, 258: 1904-1912.

2008

32. **Culmsee, H.\***, 2008. *Dysoxylum quadrangulatum*, and notes on Meliaceae in Sulawesi. *Blumea*, 53: 602-606.

2005 or earlier (until end of PhD)

33. Deil, U.\* , **Culmsee, H.\***, Berriane, M.\* , 2005. Sacred groves in Morocco: a society's conservation of nature for spiritual reasons. *Silva Carelica*, 49: 185-201.
34. **Culmsee, H.\***, 2002. The habitat functions of vegetation in relation to the behaviour of the desert locust *Schistocerca gregaria* (Forskål) (Acrididae: Orthoptera). A study in Mauritania (West Africa). *Phytocoenologia*, 32: 645-664.
35. **Culmsee, H.\***, 2001. How does the desert locust *Schistocerca gregaria* behave in its environment? A study within the *Zygophyllum waterlotii*-vegetation complex in proximity to the Atlantic Ocean in Mauritania (West-Africa). *Bocconeia*, 13: 517-521.

**Other publications in journals** (ordered descending by date)

36. **Culmsee, H.**, 2018. Naturnähe-Monitoring in Wäldern des DBU-Naturerbes. *BfN-Skripten*, 494: 19-23.
37. **Culmsee, H.**, 2017. Naturerbe-Entwicklungsplanung auf DBU-Naturerbeflächen. *Naturschutz und Biologische Vielfalt*, 158: 281-298.
38. **Culmsee, H.**, Wesche, K., 2017. Das Biosphärenreservat Oberlausitzer Heide- und Teichlandschaft: Vielfalt in Biodiversität und Landnutzung. *Tuexenia Beiheft*, 10: 25-47.
39. **Culmsee, H.**, 2017. Wildnis und Natura 2000 auf DBU-Naturerbeflächen. In: Schumacher, H., Finck, P., Klein, M., Ssymank, A., Paulsch, C. (Hrsg.), *Wildnis im Dialog: Wildnis und Natura 2000*. *BfN-Skripten*, 452: 55-78.
40. Mölder, A., Schmidt, M., Schönfelder, E., Engel, F., Schmiedel, I., **Culmsee, H.**, 2016. Gefäßpflanzen als Indikatoren historisch alter Waldstandorte. *AFZ-DerWald*, 71: 39-42.
41. Seifert, R., Henning, K., Osterloh, S., **Culmsee, H.**, Lorenz, A., Tischew, S., 2015. FFH-Offenlandmanagement in der Oranienbaumer Heide. *Tuexenia Beiheft*, 8: 17-36.
42. Leuschner, C., Wesche, K., Meyer, S., Krause, B., Steffen, K., Becker, T., **Culmsee, H.**, 2013. Veränderungen und Verarmung in der Offenlandvegetation Norddeutschlands seit den 1950er Jahren: Wiederholungsaufnahmen in Äckern, Grünland und Fließgewässern. *Ber. d. Reinh.-Tüxen-Ges.*, 25: 166-182.
43. Schmidt, M., **Culmsee, H.**, Boch, S., Heinken, T., Müller, J., Schmiedel, I., 2011. Anwendungsmöglichkeiten von Waldartenlisten für Gefäßpflanzen, Moose und Flechten. *BfN-Skripten*, 299: 25-45.
44. Schmidt, M., Ewald, J., Kriebitzsch, W.U., Heinken, T., Schmidt, W., Abs, C., Bergmeier, E. Brand, J., **Culmsee, H.**, Denner, M., Diekmann, M., Dierschke, H., Ebrecht, L., Ellenberg, H., Fischer, A., Friedel, A., Golisch, A., Härdtle, W., Kolb, A., Lippert, W., Peppeler-Lisbach, C., Mast, R., Mayer, A., Michiels, H.G., von Oheimb, G., Poppendieck, H.H., Reif, A., Riedel, W., Scheuerer, M., Schmidt, P.A., Schubert, R., Sedling, W., Spangenberg, A., Storch, M., Stöcker, G., Stohr, G., Thiel, H., Urban, R.,

Wagner, A., Wagner, I., Weckesser, M., Westphal, D.C., Wulf, M., Zacharias, D., Zerbe, S., 2011. Waldartenliste der Farn- und Blütenpflanzen Deutschlands. BfN-Skripten, 299: 53-74.

45. Wesche, K., Krause, B., **Culmsee, H.**, Leuschner, C., 2009. Veränderungen in der Flächen-Ausdehnung und Artenzusammensetzung des Feuchtgrünlandes in Norddeutschland seit den 1950er Jahren. Berichte der Reinhold-Tüxen-Gesellschaft, 21: 196-210.
46. **Culmsee, H.**, 2003. Landnutzung im Westlichen Hohen Atlas (Marokko): Nachhaltige Nutzung oder Degradation? Treffpunkt Biologische Vielfalt, 3: 55-60.
47. **Culmsee, H.**, Deil, U., 2003. Landnutzung im Westlichen Hohen Atlas (Marokko): nachhaltig oder degradierend? Mitteilungen des Badischen Landesvereins für Naturkunde und Naturschutz, N.F. 18 (2): 57-68.
48. **Culmsee, H.**, 2002. Saharische und sudanische, Wüsten- und Savannenelemente in der Halbwüstenvegetation Mauretaniens. Berichte der Reinhold-Tüxen-Gesellschaft, 14: 69-79.

#### **Books in series (PhD thesis)**

49. **Culmsee, H.**, 2004. Vegetation und Weidenutzung im Westlichen Hohen Atlas (Marokko). Eine Nachhaltigkeitsbewertung aus geobotanischer Sicht. Dissertationes Botanicae, 389: 244 pp.

#### **Book chapters** (ordered descending by date)

50. **Culmsee, H.**, 2017. Schutz und Entwicklung von FFH-Lebensraumtypen auf der DBU-Naturerbfläche „Prora“ (Rügen). - In: Hartmut Leser & Jörg Löffler, Landschaftsökologie, 5. Auflage, = UTB-Bandnr. 8718, Verlag Eugen Ulmer, Stuttgart 2017: 328-338.
51. Seifert, C., Leuschner, C., **Culmsee, H.**, 2015. Short Rotation Coppice as Habitat for Vascular Plants. In: Butler Manning, D., Bemann, A., Bredemeier, M., Lamersdorf, N., Ammer, C. (eds.), Bioenergy from Dendromass for the Sustainable Development of Rural Areas, 1<sup>st</sup> Ed., Chap. 6, pp. 63-78, Wiley-VCH, Weinheim.
52. **Culmsee, H.**, 2013. Biodiversität in der mitteleuropäischen Kulturlandschaft. In: Siegesmund, S. & Snethlage, R. (eds.), Naturstein in der Kulturlandschaft, pp. 30-38, Mitteldeutscher Verlag, Halle.
53. Siegesmund, S., Hopf, U., Stück, H., Beutler, G., **Culmsee, H.**, Hoppert, M., Reeh, T., Schmiedel, I., Schubert, J., Schwienheer, J. & Wieland, T., 2013. Die Kulturlandschaft der Drei-Gleich-Region in Thüringen. In: Siegesmund, S. & Snethlage, R. (eds.), Naturstein in der Kulturlandschaft, pp. 344-347, Mitteldeutscher Verlag, Halle.
54. **Culmsee, H.**, Herrling, J., Schmiedel, I., Schwienheer, J., Wolf, D., 2010. Die Vegetation der Drei Gleichen im Spiegel der historischen Nutzung und ihre Bedeutung für den Naturschutz. In: Siegesmund, S. & Hoppert, M. (eds.), Die Drei Gleichen. Baudenkmäler und Naturraum, pp. 202-222. Edition Leipzig.
55. Deil, U., **Culmsee, H.**, Berriane, M., 2008. Sacred groves in Morocco – a materialization of the noosphere in the biosphere. In Sheridan, M.J. & Nyamweru, C.

(eds.) African Sacred Groves. Ecological Dynamics & Social Change, pp. 87-102. James Currey, Oxford.

56. **Culmsee, H.**, 2005. Vegetation and pastoral use in the Western High Atlas Mountains (Morocco). An assessment of sustainability from the geobotanical perspective. In: Ait Hamza, M. & Popp, H. (eds.): Pour une nouvelle perception des montagnes marocaines. Espace périphérique? Patrimoines culturel et naturel? Stock de ressources dans l'avenir? Rabat 2005, pp. 67-80 (= Publications de la Faculté des Lettres et des Sciences Humaines de Rabat, Série: Colloques et Séminaires, Vol. 119).
57. **Culmsee, H.**, 2003. Das UNESCO-Biosphärenreservatkonzept als Instrument der Entwicklungszusammenarbeit. In: Kaiser, M. (ed.) WeltWissen. Entwicklungszusammenarbeit in der Weltgesellschaft, pp. 163-181. Transcript, Bielefeld.
58. **Culmsee, H.**, 2002. Argan oil production in the Biosphere Reserve Arganeraie (Morocco). In UNESCO/MAB, Biosphere reserves: Special places for people and nature, pp. 64-65. UNESCO, Paris. English and French versions available.

#### **Conference proceedings** (only 1<sup>st</sup> author contributions, ordered descending by date)

- **Culmsee, H.**, Meyer, P., Schneider, H., Aljes, M., Wörmann, R., Leuschner, C., 2018. The dilemma of wildness and naturalness in the management of novel and natural forests in Central European prospective wilderness areas. 61<sup>st</sup> IAVS Symposium, 22-27 July 2018, Bozeman, Montana, USA.
- **Culmsee, H.**, 2015. Wildnis und Natura 2000 im Nationalen Naturerbe – Konflikte und Synergieeffekte. Wildniskonferenz 2015, 09.09.2015, Staatskanzlei Potsdam, Tagungsreader, pp. 28-29.
- **Culmsee, H.**, 2015. Wilderness in Natura 2000: transforming conflicts in conservation management approaches to synergy effects. 58<sup>th</sup> IAVS Symposium, 19-24 July 2015, Brno, Czech Republic.
- **Culmsee, H.**, 2013. Development and implementation of a monitoring concept for the effectiveness control of nature conservation management in the Natural Heritage of Germany. 56<sup>th</sup> IAVS Symposium, 26-30 June 2013, Tartu, Estonia.
- **Culmsee, H.**, Schmidt, M., Schmiedel, I., Schacherer, A., 2011. Application of the forest vascular plant list to nature conservation in the state of Lower Saxony, Germany. Vegetation databases & spatial analysis, 10th Meeting on Vegetation Databases, Freising, 19-21 September 2011, Book of Abstracts, p. 10.
- **Culmsee, H.**, Schmiedel, I., Schacherer, A., 2009. The degree of naturalness on the landscape scale and its implication for the diversity of endangered and neophytic vascular plants in Lower Saxony. Bayreuther Forum Ökologie, 115: 228.
- **Culmsee, H.**, 2008. Diversity and productivity of primary pre- to upper montane forests in Central Sulawesi. Proceedings International Symposium (Oct 5-9, 2008, Kuta, Bali, Indonesia), Tropical Rainforests and Agroforests under Global Change. Universitätsdrucke Göttingen, p. 109.

- **Culmsee, H.**, 2007. Composition and spatial distribution of tree diversity in submontane and montane rainforests in Lore Lindu National Park, Sulawesi. Proceedings of the 7<sup>th</sup> Flora Malesiana Symposium in Leiden, the Netherlands.
- **Culmsee, H.**, 2005. Vegetation and pastoral use in the Western High Atlas Mountains (SW Morocco). An assessment of sustainability from the geobotanical perspective. Abstract Book of the 48<sup>th</sup> IAVS Symposium 2005, Lisbon, Portugal, p. 75.
- **Culmsee, H.**, Deil, U., 2005. Sacred groves in Morocco – a materialization of the noosphere in the biosphere. Abstracts Book of the European IALE Congress, Faro, Portugal 2005, p. 18.
- **Culmsee, H.**, 2005. The regeneration of perennial plants in the semi-arid pasture lands of the Western High Atlas Mountains (Morocco). Verhandlungen der Gesellschaft für Ökologie, 35: 255.
- **Culmsee, H.**, 2004. Grazing impact on the Mediterranean woodland vegetation in the Western High Atlas Mountains (Morocco). 13<sup>th</sup> International Workshop European Vegetation Survey (EVS), 15-20 April 2004, Ioannina, Greece, p. 21.
- **Culmsee, H.**, Deil, U., 2003. Indicators for sustainable land use versus degradation in the semi-arid open woodlands of the Western High Atlas Mountains (Morocco). 46<sup>th</sup> Symposium of the International Association for Vegetation Science, 8-14 June 2003, Napoli, Italy, p. 66.
- **Culmsee, H.**, 2001. Migration and feeding of the desert locust *Schistocerca gregaria* in its natural habitats in Mauritania (West-Africa). 44<sup>th</sup> Symposium of the International Association of Vegetation Science, 29 July - 4 August 2001, Freising-Weihenstephan, Germany, p. 77.
- **Culmsee, H.**, 1999. Untersuchungen zum Fraß- und Migrationsverhalten der Wüstenheuschrecke in Mauretanien. 29<sup>th</sup> Annual Meeting of the German Ecological Society, 13-18 September 1999, Bayreuth, Germany, p. 73.
- **Culmsee, H.**, 1998. How does the desert locust *Schistocerca gregaria* behave in its environment? – A preliminary investigation with respect to the vegetation in Mauritania (West-Africa). 9<sup>th</sup> OPTIMA meeting, 11-17 May 1998, Paris.