

**Curriculum Vitae Wolfgang Cramer**  
**Directeur de Recherche (CNRS) – Professeur d'Ecologie Globale**

**Etat civil :**

- **Cramer Wolfgang**
- Né en 1957

**Situation à l'Academie :**

- Elu membre associé en 2017
- Section VII Environnement et territoires
- Groupe de travail : pas encore connu
- Fonction exercée : pas encore connue

**Titre ou Situation actuels :** Directeur de Recherche, CNRS

**Coordonnées :**

- **Professionnelles :** Institut Méditerranéen de Biodiversité et d'Ecologie marine et continentale (IMBE), Aix Marseille Université, CNRS, IRD, Avignon Université, Technopôle Arbois-Méditerranée, Bât. Villemin – BP 80, F-13545 Aix-en-Provence cedex 04, Tel. +33-4-42-90-84-86, E-Mail: wolfgang.cramer@imbe.fr, Web page <http://www.imbe.fr/wolfgang-cramer>, ORCID: <http://orcid.org/0000-0002-9205-5812>
- **Adresse principale :** 22 Rue Vauvenargues, F-13100 Aix-en-Provence, France
- **Région de rattachement :** Provence-Alpes-Côte d'Azur
- **N° portable :** 06-82-04-35-95
- **N° telephone autre :** 04-42-90-84-86
- **Adresse e.mel personnelle :** wolfgang@cramer-bondeau.fr
- **Adresse e.mel professionnelle :** wolfgang.cramer@imbe.fr

**Formations :**

- Géographie (Diplome), Justus-Liebig-Universität Gießen (Allemagne), 1975-81
- Ecologie végétale (Filosofi Doktor = Ph.D.), Uppsala University (Suede), 1981-1986, These: « Vegetation Dynamics on Rising Sea-Shores in Eastern Central Sweden » (soutenance 11.4.1986)

**Carrière :**

*position actuelle:*

- *Directeur Délégué « International », Institut Méditerranéen de Biodiversité et d'Ecologie marine et continentale (IMBE), Aix-en-Provence, France*

*antérieur:*

- Postdoctoral research fellow, Modelling Forest Dynamics, Institute of Plant Ecology, Uppsala University, Uppsala (Sweden), 1986
- Associate Professor for Environmental Geography, Department of Geography, Trondheim University, Trondheim (Norway), 1986-92
- Director, Department of Geography, Trondheim University, 1988-90
- Research Scholar, Sustainable Development of the Biosphere, International Institute for Applied Systems Analysis (IIASA), Laxenburg (Austria), 1989
- Professor for "Energy, Environment and Society" ("Brundtland-Professor"), Center for Environment and Development, Trondheim University, 1993
- Research Domain Head, Earth System Analysis, Potsdam Institute for Climate Impact Research, Potsdam, Germany (1993-2011)

- Full professor (chair) of Global Ecology, Institute of Earth- and Environmental Sciences, Potsdam University, 2003-2011
- Visiting scientist, Centre Européen de Recherche et d'Enseignement des Géosciences de l'Environnement (CEREGE), Aix-en-Provence (France) 2007-2008
- Directeur de Recherche, CNRS, Institut Méditerranéen d'Ecologie et de Paléoécologie (IMEP, May-December 2011)
- Science Director (*directeur adjoint scientifique*), Institut Méditerranéen de Biodiversité et d'Ecologie marine et continentale (IMBE), Aix-en-Provence, France

**Domaine d'expertise :**

- Ecologie globale
- Changement climatique
- Interaction climat-biosphère
- Développement durable

**Mots clés :**

- Ecologie globale
- Changement climatique
- Interaction climat-biosphère
- Développement durable

**Distinctions et prix :**

- "Linnaeus Award", Kungliga Vetenskaps-Societeten (Uppsala, Sweden), 1987
- "Fridtjof Nansen Award", Fridtjof-Nansen Stiftelsen (Oslo, Norway), 1992
- Associate, Kennedy School of Government, Harvard University, Belfer Center for Science and International Affairs (2001)
- "Best collaborative project at PIK" (2005, shared with Anne de la Vega-Leinert, Richard J.T. Klein and all EVA collaborators)
- Zayed International Prize for the Environment 2005, for "Scientific/ Technological Achievements in Environment", with all authors of the Millennium Ecosystem Assessment
- Peace Nobel Prize 2007, with all members of the Intergovernmental Panel on Climate Change (IPCC)
- Distinguished Professorial Fellowship of Durham University's Institute of Advanced Study, Durham, UK (offered in 2009, declined)

**Fonctions actuelles ou récentes :**

- Co-Président, Comité National Français des Changements Globaux
- Co-Chair, ecoSERVICES (Future Earth)
- Conseil Scientifique, Institut Ecologie et Environnement, CNRS
- Chair, International Scientific Advisory Board, Museum für Naturkunde (Berlin, Germany)
- Member, International Scientific Advisory Board, Leibniz Institut für Gewässerökologie und Binnenfischerei (Berlin, Germany), Institute of Environmental Science and Technology (ICTA), Universitat Autònoma de Barcelona (Spain)

**Activités académiques ou professionnelles :**

- Intergovernmental Panel on Climate Change (IPCC)
  - Second Assessment Report, Working Group II (1995): Lead Author, Chapter 1 (Climate Change Impacts on Forests) and Contributing Author, Introductory Material A (Primer)
  - Special Report "Land Use, Land Use Change and Forestry" (2000): Lead Author, Chapter 2 (Global Perspective)
  - Third Assessment Report, Working Group II (2001): Lead Author, Chapter 5 (Ecosystems and their goods and services) and Chapter 13 (Europe)

- Fourth Assessment Report, Working Group II (2007): Review Editor, Technical Summary (with D Murdiyarso, Bogor, Indonesia) and Chapter 4, "Ecosystems" (with S Diaz, Cordoba, Argentina)
- Fifth Assessment Report, Working Group II (2014): Coordinating Lead Author, Chapter 18, "Detection and Attribution of Observed Impacts of Climate Change" (with G Yohe, USA), Synthesis Report (2014): Core Writing Team Member
- Special Report "1.5 degrees", Lead Author (ongoing)
- Scientific advisor of the German government delegation at several IPCC plenary sessions and national policy meetings
- Millennium Ecosystem Assessment
  - Scenarios Working Group: Convening Lead Author (with J Alcamo and D Van Vuuren), Chapter 9 (Changes in Provisioning and Regulating Ecosystem Goods and Services and their Drivers across Scenarios)
  - Conditions and Trends Working Group: Lead author, Chapter 3 (Analytical Approaches for Assessing Ecosystem Condition and Human Well-Being)
- Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)
  - Member of the French government and/or ICSU delegations at four IPBES plenary sessions and national policy meetings
- Mediterranean Experts on Environmental and Climate Change (MedECC)
  - Co-founder (with Joël Guiot, Aix-en-Provence)

### Publications

145 publications dans des revues indexées ou chapitres de livres,  $h_{ISI} = 48$ , 12 livres édités et numéros spéciaux, plus de 30 rapports, éditoriaux, et diverses publications (selection ci dessous).

- Davis TW, Prentice IC, Stocker BD, Thomas RT, Whitley RJ, Wang H, Evans BJ, Gallego-Sala AV, Sykes MT, **Cramer W** 2017 Simple process-led algorithms for simulating habitats (SPLASH v.1.0): robust indices of radiation, evapotranspiration and plant-available moisture. *Geosci Model Devel* 10:689-708
- Fader M, Shi S, Von Bloh W, Bondeau A, **Cramer W** 2016 Mediterranean irrigation under climate change: more efficient irrigation needed to compensate increases in irrigation water requirements. *Hydrol Earth Syst Sci* 20:953-973
- Guiot J, **Cramer W** 2016 Climate change: The 2015 Paris Agreement thresholds and Mediterranean basin ecosystems *Science* 354(6311):465-468
- Huggel C, Wallimann-Helmer D, Stone D, **Cramer W** 2016 Reconciling justice and attribution research to advance climate policy. *Nature Climate Change* 6:901-908
- Langerwisch F, Walz A, Rammig A, Tietjen B, Thonicke K, **Cramer W** 2016 Climate change increases riverine carbon outgassing while export to the ocean remains uncertain *Earth Syst Dyn* 7:559-582
- Bennett EM, **Cramer W**, Begossi A, Cundill G, Díaz S, Egoh BN, Geijzendorffer IR, Krug CB, Lavorel S, Lazos E, Lebel L, Martín-Lopez B, Meyfroidt P, Mooney HA, Nel JL, Pascual U, Payet K, Pérez Harguindeguy N, Peterson GD, Prieur-Richard A-H, Reyers B, Roebeling P, Seppelt R, Solan M, Tschakert P, Tschardtke T, Turner II BL, Verburg PH, Viglizzo EF, White PCL, Woodward G 2015 Linking biodiversity, ecosystem services and human well-being: Three challenges for designing research for sustainability. *Curr Opin Env Sust* 14:76-85
- Hansen G, **Cramer W** 2015 Global distribution of observed climate change impacts. *Nature Climate Change* 5:182-185
- Dass P, Müller C, Brovkin V, **Cramer W** 2013 Can bioenergy cropping compensate high carbon emissions from large-scale deforestation of high latitudes? *Earth Syst Dynam* 4:409-424
- Fader M, Gerten D, Krause M, Lucht W, **Cramer W** 2013 Spatial decoupling of agricultural production and consumption: quantifying dependence of countries on food imports due to domestic land and water constraints. *Env Res Lett* 8 014046
- **Cramer W**, Bondeau A, Woodward FI, Prentice IC, Betts RA, Brovkin V, Cox PM, Fisher V, Foley J, Friend AD, Kucharik C, Lomas MR, Ramankutty N, Sitch S, Smith B, White A, Young-Molling C 2001 Global response of terrestrial ecosystem structure and function to CO<sub>2</sub> and climate change: results from six dynamic global vegetation models. *Gl Ch Biol* 7(4):357-373

### **Activités éditoriales :**

- Edited twelve books / journal special issues
- Editor-in-Chief, *Regional Environmental Change* (Springer Nature Publishers, since 2000)

- Review Editor, *Science* (2008-2013)

**Short Bio :**

Professor Dr Wolfgang Cramer, environmental geographer and global ecologist, is scientific director at the Mediterranean Institute for Biodiversity and Ecology (IMBE), in Aix-en-Provence, Marseille and Avignon (France), since the establishment of the institute in 2012.

Wolfgang Cramer received his academic training at the Universities of Gießen/Germany (geography, diploma 1981) and Uppsala/Sweden (plant ecology, Ph.D. 1986). From 1987 to 1993, he taught and conducted his research at the Department of Geography, Trondheim University (Norway) while also being a frequently visiting scholar at the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria. In 1992, he joined the newly founded Potsdam Institute for Climate Impact Research (PIK) in Potsdam, Germany, as head of the department "Global Change and Natural Systems", later to the institute's research domain "Earth System Analysis". In 2003, he was appointed full professor of global ecology at Potsdam University. In 2011, he left Potsdam for the Mediterranean Institute for Ecology and Paleoecology (IMEP), in order to help its transition to IMBE.

The scientific contributions by Cramer's research group (145+ papers) were initially in the area of modelling forest dynamics under climate change. He then began to seek a broader understanding of biosphere dynamics at the global and continental scale, including aspects of natural and human disturbance as well as biodiversity. He has been directing a large European ecosystem modelling project, ATEAM (EU FP5), as well as its companion outreach activity, AVEC.

Together, these projects have resulted in the first ever region-specific and comprehensive ecosystem service assessment across Europe, communicated through the scientific literature as well as through an intensive stakeholder dialogue. Based on ATEAM/AVEC, he has established popular, two-weeks long annual summer schools for young experts in the field of biodiversity and ecosystem services (the last six for the EU Network of Excellence ALTER-Net).

Wolfgang Cramer has been and still is a contributor in many roles to the IPCC (Peace Nobel Prize 2007) and the Millennium Ecosystem Assessment. He is (with Elena Bennett, McGill University) co-chair of the Science Committee of ecoSERVICES and a PECS Fellow. He is also (with James Ford, McGill University) co-chief editor of the Springer Nature journal *Regional Environmental Change*. He also regularly serves as advisor of the German and French governments. In 2017, he was elected associated member of the Académie d'Agriculture de France.