
CURRICULUM VITAE



Latest update: 10 December 2016

PERSONAL INFORMATION

Full name: Francisco Sánchez-Bayo
Date of birth: 25-August-1957
Place of birth: Candelario (Salamanca province, Spain)
Citizenship: Spanish; Australian since 28-November-1989
Languages: Spanish, mother tongue
English, fluent (professional translator)
Japanese, basic skills
Home address: 1 Hollister Place, Carlingford, NSW 2118, Australia
Contact: +61-2-98715973
sanchezbayo@mac.com
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EMPLOYER

Institution: The University of Sydney, Faculty of Agriculture & Environment
Position: Honorary Associate
Address: 1 Central Avenue,
ATP Biomedical building C81, Eveleigh, NSW 2015, Australia
Contact: +61-2-86271046 (Tel)
francisco.sanchez-bayo@sydney.edu.au

EDUCATION

Year	Degree	Institution
1989	Grad Dip Appl Sci (Arid Lands Management)	UNSW (Australia)
1985	PhD (Ecology) <i>Cum laude</i>	Universidad Autónoma de Madrid (Spain)
1980	MSc in Environmental Biology	Universidad Autónoma de Madrid (Spain)

Professional accreditations:

1995 Professional translator from English into Spanish language National Accreditation Authority for Translators and Interpreters
1994 Translator from English into Spanish language and vice versa (NAATI), Australia

REFEREES

Emeritus Prof. Ivan R. Kennedy, Faculty of Agriculture & Environment, University of Sydney, Tel: 02-8627 1046; mobile: 0407 949 622; email: ivan.kennedy@sydney.edu.au

Dr Ross V. Hyne, Office of Environment & Heritage NSW, Tel: 02-9995 5081; email: ross.hyne@environment.nsw.gov.au

Dr John Chapman, former Head of Environmental Contaminants, DECC NSW, mobile: 0401714440; email: chapman.john@aol.com

AWARDS

- 1974-76 Junior Research Scholarship, Consejo Superior de Investigaciones Cientificas (CSIC), Spain
1998 IUPAC Runner-up of the Rhone-Poulenc Agro Environmental Poster Prize, London, U.K.
2007 Cotton CRC Best Research Paper (Chemosphere 63:1849-1858, 2006), Australia.

MEMBERSHIPS

Alumni Association, University of New South Wales, since 1989
Australian Chinese Painting Society, 1993-2001
Birdlife Australia, since 2011
Ecological Society of Australia [ESA], 1993-2001
National Accreditation Authority for Translators and Interpreters (NAATI), since 1995
Society of Environmental Toxicology and Chemistry (SETAC-Australasia), since 2005
Spanish Ornithological Association [SEO-Birdlife], 1974-85
Spanish Researchers of Asia-Pacific [SRAP], since 2015

EMPLOYMENT RECORD

- 12/2015-current **Honorary Associate**, School of Life & Environmental Sciences (SOLES), Faculty of Agriculture and Environment, The University of Sydney
11/2013-11/2015 **Researcher**, Faculty of Agriculture and Environment/QuickTest Technologies, The University of Sydney
12/2013-6/2014 **Ecotoxicology Technician**, Office of Environment and Heritage NSW, Ecotoxicology, Lidcombe, NSW
1/2008-5/2013 **Research Associate**, Centre for Ecotoxicology, University of Technology Sydney/Office of Environment and Heritage NSW, Lidcombe, NSW
1/2002-7/2006 **Assistant Professor**, Laboratories of Toxicology and Applied Entomology and Zoology, Faculty of Horticulture, Graduate School of Science and Technology, Chiba University (Japan)
7/1997-11/2001 **Post-Doctoral Fellow**, Department of Agricultural Chemistry and Soil Science, University of Sydney
12/1995-6/1997 **Professional Officer**, Department of Agricultural Chemistry and Soil Science, University of Sydney
1/1995-12/1995 **Research Assistant**, Department of Agricultural Chemistry and Soil Science, University of Sydney
1992 **Visiting Fellow** (honorary), Department of Wool and Animal Science, University of New South Wales
1988 **School teacher** of Spanish Language and Arts & Crafts, Redfield College, Dural, NSW
1986-93 **Correspondent** for Prensa Española S.A. in Australia and the South Pacific region
1981-85 **Research Student** (part-time), Department of Ecology, Complutense University of Madrid (UCM), Spain. Supervisor: Prof. F. Diaz Pineda.

RESEARCH INTERESTS

Current:

- Risk assessment of insecticides to bees.
- Evaluation of neonicotinoid impacts on the aquatic environment.
- Development of quick tests for detection of natural toxins and pesticides in agricultural products and environmental matrices.

Previous:

- Risk assessment of pesticide residues in cotton gin trash.
- Development of passive samplers for monitoring pesticides in environmental waters.
- Development of methods for evaluating chemical impacts in aquatic communities.
- Comparative risk assessment of pesticides between tropical and non-tropical countries.
- Ecotoxicology modelling.
- Ecological impacts of pesticides on bird and frog communities.
- Sublethal and ecological effects of pesticides/pollutants in experimental ecosystems (mesocosms).
- Ecotoxicology of paddy crustaceans; review of toxicity of pollutants to crustaceans.
- Phyto-remediation of pesticide/toxicant residues using artificial wetlands.
- Risk assessment and management of pesticides in agriculture, particularly in cotton production agro-ecosystems.
- Fate and transport of pesticides in the riverine environment.
- Ecology of woody weeds in New South Wales.
- Ecological structure of bird communities in river forests (PhD thesis).

ACADEMIC COURSES

Undergraduate courses at the Faculty of Horticulture, Chiba University (Japan)

- *English in Natural Sciences*, elective course for 1st to 4th year students (2004-06)
- *Environmental Pollution* (co-lecturer 1/3 of total), 3rd year students (2003-04)
- *Practical Laboratory on Pesticide Toxicology*, 3rd year students (2002-04)
- *Seminar for Bioproduction Science*, 1st year students (2003)

External courses at the University of New England, Armidale, Australia (2000-01)

- *Chemicals in Cotton Farming Systems*, Postgraduate Certificate in Rural Science (Cotton Production) for cotton growers and consultants.
- Contributed a lecture on *Environmental issues in Japan* for the Postgraduate Certificate Program of Arts at Macquarie University (2010). The program is delivered fully online using Blackboard and now Moodle.

Guest lecturer at Macquarie University, Australia (2008-11)

- *Environmental Issues in Japan*, Modern Japanese Society for 2nd and 3rd year undergraduate students in the Bachelor of Arts
- *The University in Japan*, Issues in cross-cultural communication for post-graduates of Japanese Studies
- *Australia's Environment*, Ritsumeikan Program for 1st to 3rd year undergraduate Japanese exchange students at Macquarie University (2009, 2014, 2015)
- *Environmental Issues*, Asian Studies for 1st year undergraduates in the Bachelor of International Studies

Guest lecturer at the University of Sydney, Australia (2015, 2016)

- *Environmental Chemistry* (AGCH3033) for 3rd year students in the Bachelor of Environmental Systems

Supervision of students

- Honours: 5 at Chiba University (Japan) and 2 at The University of Sydney
- Master: 1 at Chiba University (Japan) and 1 at The University of Sydney
- PhD: 2 at Chiba University (Japan), 1 at The University of Sydney and 4 at UNSW

PhD examiner on 3 occasions

UNIVERSITY ADMINISTRATIVE SERVICE

Faculty of Horticulture, Chiba University (Japan)

- Design and maintenance of the English version of the Faculty's webpage (2002-06)
- Assist the Deputy Vice-Chancellor for Education (2005-06) with the following matters:
 - international collaboration for development of e-learning systems
 - developing teaching programs for international students
- Committee member:
 - i) overseas students' scholarships (2003)
 - ii) international relations (2002-03)

Department of Agricultural Chemistry & Soil Science, University of Sydney, Australia

- Organization experience
 - *Workshop on Aflatoxin QuickTest™* for personnel of the "Seeds for Life (SoL)" and Ministry of Agriculture and Fisheries (MAP) of Timor-Leste. Dili, East-Timor, November 23-27 (2015)
 - *Rural Environmental Chemistry excursion*, a six-day study trip to the Namoi valley and Macquarie Marshes for undergraduate students of Environmental Science (1999-2001).
 - The 8th *International Symposium on Nitrogen Fixation with Non-legumes*, 3-7 December, 2000
 - Two *ELISA Workshops*, professional development courses for training laboratory and academic staff in the use of commercial ELISA test kits for agrochemicals, held at
 - I. The University of Southern Queensland, February 9-10 (1999)
 - II. The University of Sydney, September 28-29 (1999)
 - Symposium "*Pesticides in Soil, Water and Produce: Analysis, Environmental Monitoring and Remediation*" (1998)
- Maintenance of Department's Server, its Website and computing equipment (1997-2001)

PROFESSIONAL CONTRIBUTIONS

Editorial board of the online Journal of Environmental & Analytical Toxicology (OMICS Publishing Group, USA) from 2012 to 2015.

Member of The Science Advisory Board since 2016.

Reviewer for the following journals:

- African Journal of Agricultural Research (academicJournals)
- African Journal of Aquatic Science (Taylor & Francis, South Africa)

- African Journal of Environmental Science and Technology (academicJournals)
- Agriculture, Ecosystems and Environment (Elsevier)
- Archives of Environmental Contamination and Toxicology (Springer-Verlag)
- Aquatic Toxicology (Elsevier)
- Australasian Bulletin of Ecotoxicology and Environmental Chemistry (SETAC-AU)
- Chemosphere (Elsevier)
- E-books (Bentham Science Publishers Inc)
- Ecotoxicology (Springer-Verlag)
- Ecotoxicology and Environmental Safety (Elsevier)
- Entomologia Experimentalis et Applicata (Thomson-Reuters)
- Environmental Chemistry (CSIRO, Australia)
- Environmental Pollution (Elsevier)
- Environmental Science and Pollution Research (Springer-Verlag)
- Environmental Science and Technology (ACS Publications, USA)
- Environmental Toxicology (Wiley-Blackwell)
- Environmental Toxicology and Chemistry (SETAC, Wiley-Blackwell)
- Gayana Botanica (Chilean Society of Botany, Chile)
- Human and Ecological Risk Assessment (Taylor & Francis, USA)
- International Journal of Environmental Analytical Chemistry (Taylor & Francis)
- Journal of Agricultural and Food Chemistry (ACS Publications, USA)
- Journal of Chemistry (Hindawi Publishing Co, USA)
- Journal of the Chemical Society of Pakistan
- Journal of Chromatography A (Elsevier)
- Journal of Economic Entomology (Oxford University Press, U.K.)
- Journal of Environmental & Analytical Toxicology (OMICS Publishing Group, USA)
- Journal of Visualized Experiments (JoVE, Massachusetts, USA)
- Life Sciences (OMICS Publishing Group, USA)
- Marine Environmental Research (Elsevier)
- Nature Communications (Nature Publishing, U.K.)
- Nature Ecology & Evolution (Nature Publishing, U.K.)
- Paddy and Water Environment (Springer-Verlag)
- Pesticide Biochemistry and Physiology (Elsevier)
- PLoS ONE (U.S. National Library of Medicine)
- Psyche: A Journal of Entomology (Hindawi Publishing Co, USA)
- Scientific Reports (Nature Publishing, U.K.)
- Science of the Total Environment (Elsevier)
- South African Journal of Plant and Soil (South Africa)
- The Wilson Bulletin (Wilson Ornithological Chapter of the Agassiz Association, Ohio)

Expert Assessor for evaluating scientific research proposals in the following countries:

- Agence Nationale de la Recherche (ANR), France
- Australia-India Strategic Research Fund (AISRF), Australia

- Harvard T.H. Chan School of Public Health, Harvard University, Boston, Massachusetts, USA
- National Center of Science and Technology Evaluation, Ministry of Education and Science, Astana, Republic of Kazakhstan
- National Research, Development and Innovation Office (NKFIH), Hungary
- The National Science Center, Ministry of Science and Higher Education, Krakow, Poland
- The Research Foundation-Flanders (FWO), Belgium

Assessor of the 2014 ET&C Best Student Paper Award of the SETAC North America chapter

Key research contributions:

Developed a model that explains the time-cumulative toxicity of imidacloprid in bees and other insects. See *Sci. Rep.* 4: 5566 (2014).

Demonstrated the ability of simple mathematical models to analyse toxicity data and predict the effects of toxicants in organisms. See *Toxicology* 309:39-51 (2013), *Ecotoxicology* 18:343-354 (2009) and *Ecotoxicology* 16:511-523 (2007).

Designed a system for remediation of pesticide residues from agricultural sources using wetland plants in small ponds. The system was tested in cotton farms during 2002-2003, with funding from the National Heritage Trust and the Australian Cotton CRC. Following my relocation to Japan, it provided the opportunity for a PhD researcher, who won an Australian Cotton CRC award in 2005 for “best research project”. See *Chemosphere* 63:1849-1858 (2006).

Designed and developed the Ecological Relative Risk (EcoRR), a methodology for site-specific risk assessment of agrochemicals applied to farmland. The method was presented at the Asia-Pacific Conference on Chemical Ecology (Shanghai, 1999), the Biennial Conference of the Australian Society of Ecotoxicology (Canberra, 2001), the SETAC Europe Annual Meeting (Madrid, 2001) the Annual Conference of the Applied Entomological Society of Japan (Tokyo, 2002) and the Annual Conference of the Pesticide Science Society of Japan (Tsuchiura, 2002). Included as part of the reading assignments in environmental courses at Athabasca University (Canada). Published in *Agric. Ecosyst. Environ.* 91:37-57 (2002), it ranked 17th among the most downloaded articles from that journal in 2003.

Developed a technique to measure the dietary exposure of birds to pesticides, applicable to other pollutants and animal taxa. It won a runner-up Agro Environmental Poster Prize when first presented at the 9th International Congress on Pesticide Chemistry (IUPAC, London 1998). See *Anal. Chim. Acta*, 399:173-183 (1999)

Proposed a novel immune-contraception method for control of feral foxes and rabbits in Australia in an essay-report written as part of a course on Management of Arid Lands at the UNSW (1989). This idea was implemented a few years later by the CSIRO (cf. Tyndale-Biscoe, H. *Pac. Conserv. Biol.* 1:160-2, 1994), and according to H. McCallum it became the ‘holy grail of vertebrate pest control in Australia’ (cf. *Trends Ecol. Evol.* 11:491-3, 1996).

Given numerous oral presentations at national and international conferences (41), lectures at undergraduate level (16 years), professional workshops (6) and seminars (15) at several universities in Australia, Spain, Japan, Vietnam, China, the Philippines and East Timor. See **Annex** for more details

RESEARCH GRANTS / PROJECT EXPERIENCE

Worked in 27 research projects in Australia, Japan and Spain:

- 11 projects funded by government agencies and CRC
- 6 projects funded by the Australian cotton industry
- 7 projects funded by chemical companies
- 1 project for a consulting firm (Hong-Kong)
- 1 project funded by the Goulburn-Murray Water (Vic)
- 1 project as volunteer with the SEO-Birdlife in Spain

- *Cotton gin trash as a potential resource: Reassessing risk factors (2014-15)*. **Cotton Research and Development Corporation** (A\$193,000).
- *Application of Mixed Waste Organic Outputs from Alternative Waste Technologies (AWT-MWOO) to land. Research Program-Project 3: Toxicity of MWOO leachates (2012-15)*. **Environmental Trust**, Office of Environment and Heritage NSW.
- *Development of new, innovative and economical passive sampling technology for G-MW herbicides – stage II (2010-12)*. Collaborative research between **Goulburn-Murray Water** (Vic) and the University of Technology Sydney (A\$120,000).
- *The Review and Development of Marine Water Quality Objectives for Hong Kong Waters (2009)*. Study for the Centre for Coastal Pollution and Conservation, City University of Hong Kong.
- *Development of methods for ecological risk assessment of pesticides used to control terrestrial arthropods (2006-07)*. Collaborative research between the National Institute for Environmental Research (NIES Tsukuba, Japan) and the Laboratory of Applied Entomology and Zoology (Chiba University, Japan). Research funding by the **Ministry of the Environment of Japan** (¥6 million).
- *Ecological risk assessment and effects of chemicals in rice paddies (2004-05)*. Collaborative research funded by the National Institute of Environmental Research (Tsukuba, Japan), under the theme 'Biodiversity conservation'.
- *An integrated approach to strengthening institutional infrastructure for environmental risk assessment, monitoring and remedial action for pesticide residues in Vietnam (2001-03)*, funded by **AusAID** through the Capacity-Building for Agriculture and Rural Development (CARD) Program (A\$355,000).
- *Development of an integrated system for remediation of waterborne pesticide residues in cotton farms (2000-03)*, funded by the **National Heritage Trust** (A\$227,000) and the **Australian Cotton CRC** (\$90,000).
- *Cotton chemicals and residues - Risk management CRDC 66C (2001)*, funded by the **Cotton Research and Development Corporation** (A\$65,000).
- *An ecological risk assessment (ERA) for the chemicals used in cotton-growing on "Pillcawarrina", via Warren N.S.W. (1999-2000)*. Joint project funded by the **Cotton Research and Development Corporation** and **Waterman Agriculture Pty Ltd** (A\$17,000).
- *Ecological risk assessment and risk management for new cotton developments CRDC US49C (1999)*, funded by the **Cotton Research and Development Corporation** (A\$17,000).
- *Endosulfan residues in cattle - Traceback project CRDC US50C (1999)*, funded by the **Cotton Research and Development Corporation** (A\$65,000).
- *Field studies conducted on Intrepid® in an Australian cotton production system (1999)*, funded by **Cyanamid Agriculture Pty Limited** (A\$10,000).
- *Development of standard environmental tests for herbicides needed in cotton production (1998-2000)*, funded by **CRC for Sustainable Cotton Production** (A\$180,000).

- *Fate of endosulfan in water USY8* (1998). Joint program by **Land and Water Resources Research and Development Corporation, Cotton Research and Development Corporation** and **Murray-Darling Basin Commission** (A\$20,000).
- *Cascade[®] insecticide environmental fate in Australian cotton production systems* (1998), funded by **Cyanamid Agriculture Pty Limited** (A\$19,000).
- *Persistence of chlorpyrifos at concentrations providing termiticidal control in six Australian soils* (1998), funded by **Dow AgroSciences Australia Limited** (A\$12,000).
- *Field soil dissipation of pyrethroids sodium following application of Staple[®] herbicide* (1997-98), funded by **Du Pont Agricultural Products** (A\$45,000).
- *La Sierra de Candelario – Informe Ambiental para la Consejería del Medio Ambiente de Castilla y León* (1997), Report submitted to the European Commission.
- *Endosulfan degradation on pasture CRDC 7C* (1997), funded by the **Cotton Research and Development Corporation** (A\$65,000).
- *The environmental fate of spinosad in Australian cotton production systems: An eco-risk assessment* (1997), funded by **DowElanco Australia Limited** (A\$6,000).
- *The environmental fate of Intrepid[®] (chlorfenapyr) (AC 303,630) in an Australian cotton production system* (1996-97), funded by **Cyanamid Agriculture Pty Limited** (A\$32,000).
- *Transport of Helix[®] (chlorfluazuron) by water, sediment and volatilization/ contaminated dust* (1996-97). Joint program by **Land and Water Resources Research and Development Corporation, Cotton Research and Development Corporation** and **Murray-Darling Basin Commission** (A\$75,000).
- *The environmental fate of quinalphos* (1996), funded by **Sandoz Australia Pty Ltd** (A\$5,000).
- *Spatial distribution of chemicals and the potential for transport off-farm SU 1.1.1* (1994-96), funded by the **CRC for Sustainable Cotton Production** (A\$110,000).
- *Minimising the impact of pesticides in the riverine environment using the cotton industry as a model* (1993-96). Joint program by **Land and Water Resources Research and Development Corporation, Cotton Research and Development Corporation** and **Murray-Darling Basin Commission** (A\$320,000).
- Collaborator in the "*Atlas de las Aves de España (1975-1995)*" [Distribution map of birds in Spain]. A national project sponsored by the **SEO/Birdlife** (Spanish Ornithological Association). Contributed with field surveys and data from several regions of Spain. Published in 1997 (Lynx Edicions, Barcelona).

PUBLICATIONS

Peer-reviewed	73	Other	25
Research papers*	50	Symposium proceedings	1
Book chapters*	12	Course notes	1
Books (editor and author)	3	Technical reports	17
Papers in conference proceedings	8	Magazine articles	4
* Published or in press		Book translations	2

Most of my publications are available at <http://publicationslist.org/sanchezbayo> and from **ResearchGate** https://www.researchgate.net/profile/Francisco_Sanchez-Bayo2

PhD thesis title: Analysis of the spatial and temporal organisation of a bird community in riverine forests of the Duero basin [*Análisis de la organización espacio-temporal de la avifauna de un soto del río Duero*] Supervisor: Professor Francisco Díaz Pineda, UAM/UCM (Madrid)

My profile is published in:

International Innovation (2015) “The time for change – A new dawn for Asia-Pacific research”, 175: 97-99.

<http://digimag.internationalinnovation.com//launch.aspx?eid=cbbaaf66-1d9a-40df-bb95-7f1e0f917aaf>

ResearchGate

Who's Who in Science and Engineering (2006) Marquis Pub., New Jersey, USA

Who's Who in Asia (2006)

Who's Who in the World (2009)

Key publications

- 1) **Sánchez-Bayo, F.**, Goka, K. and Hayasaka, D. (2016) Contamination of the aquatic environment with neonicotinoids and its implication for ecosystems. *Frontiers Environ. Sci.* 4: 71.
- 2) **Sánchez-Bayo, F.** and Goka, K. (2014). Pesticide residues and bees – A risk assessment. *PLoS ONE* 9(4): e94482.
- 3) Tennekes, H.A. and **Sánchez-Bayo, F.** (2013) The molecular basis of simple relationships between exposure concentration and toxic effects with time. *Toxicology* 309: 39-51.
- 4) **Sánchez-Bayo, F.** (2009) From simple toxicological models to prediction of toxic effects in time. *Ecotoxicology*. 18(3): 343-354.
- 5) **Sánchez-Bayo, F.**, Baskaran, S., and Kennedy, I.R. (2002) Ecological Relative Risk (EcoRR): Another approach for risk assessment of pesticides. *Agric. Ecosyst. Environ.* 91: 37-57.
- 6) **Sánchez-Bayo F.**, Ward, R. and Beasley, H. (1999) A new technique to measure bird's dietary exposure to pesticides. *Anal. Chim. Acta*, 399: 173-183.

ANNEX

Articles in Peer-reviewed Journals

- 1) Botías, C. and **Sánchez-Bayo, F.** (2017) Papel de los plaguicidas en la pérdida de polinizadores. *Ecosistemas* (submitted)
- 2) **Sánchez-Bayo, F.**, Belzunces, L. and Bonmatin, J-M. (2017) Lethal and sublethal effects, and incomplete clearance of the ingested neonicotinoid insecticide imidacloprid in honey bees (*Apis mellifera*) contrast with Cresswell et al. (2014). *Pest Manage. Sci.* (submitted).
- 3) **Sánchez-Bayo, F.**, Goka, K. and Hayasaka, D. (2016) Contamination of the aquatic environment with neonicotinoids and its implication for ecosystems. *Frontiers Environ. Sci.* 4: 71.
- 4) Tennekes, H.A., J Pletz, J. and **Sánchez-Bayo, F.** (2016) Development of a dose-response model for risk assessment of receptor-mediated effects. *Internal Medicine Review* 2 (April): 1-13.
- 5) Pletz, J., **Sánchez-Bayo, F.** and Tennekes, H.A. (2016) Dose-response analysis indicating time-dependent neurotoxicity caused by organic and inorganic mercury - Implications for toxic effects in the developing brain. *Toxicology* 347-349: 1-5.
- 6) **Sánchez-Bayo, F.**, Goulson, D., Pennacchio, F., Nazzi, F., Goka, K. and Desneux, N. (2016) Are pesticides linked to bee diseases? A brief review. *Environ. Int.* 89-90(4-5): 7-11.
- 7) **Sánchez-Bayo, F.** and Desneux, N. (2015) Link between neonicotinoids and prevalence of parasites and diseases in bees. *Bee World* 92(2), 34-40.
- 8) Hayasaka, D., Kuwayama, N., Takeo, A., Ishida, T., Mano, H., Inoue, M.N., Nagai, T., **Sánchez-Bayo, F.**, Goka, K. and Sawahata, T. (2015). Different acute toxicity of fipronil baits on invasive *Linepithema humile* supercolonies and some non-target ground arthropods. *Ecotoxicology* 24(6), 1221-1228.
- 9) Morrissey, C.A, Mineau, P., Devries, J.H., **Sánchez-Bayo, F.**, Liess, M., Cavallaro, M. and Liber, K. (2015) Neonicotinoid contamination of global surface waters and associated risk to aquatic invertebrates: A review. *Environ. Int.* 74(1): 291-303.
- 10) **Sánchez-Bayo, F.** (2014) The trouble with neonicotinoids. *Science* 346(6211): 806-807.
- 11) Rondeau, G., **Sánchez-Bayo, F.**, Tennekes, H.A., Decourtye, A., Ramírez-Romero, R. and Desneux, N. (2014). Delayed and time-cumulative toxicity of imidacloprid in bees, ants and termites. *Sci. Rep.* 4: 5566.
- 12) **Sánchez-Bayo, F.** and Goka, K. (2014). Pesticide residues and bees – A risk assessment. *PLoS ONE* 9(4): e94482.
- 13) **Sánchez-Bayo, F.** and Hyne, R.V. (2014) Detection and analysis of neonicotinoids in river waters – development of a passive sampler for three commonly used insecticides. *Chemosphere* 99: 143-151.
- 14) Hayasaka, D., Suzuki, K., Korenaga, T., Saito-Morooka, F., Nomura, T., Fukasawa, K., **Sánchez-Bayo, F.** and Goka, K. (2013). Effects of two successive annual treatments of two systemic insecticides, imidacloprid and fipronil, on dragonfly nymph communities in experimental paddies. *J. Pestic. Sci.* 38(2): 101-107.
- 15) **Sánchez-Bayo, F.**, Hyne, R.V., Kibria, G. and Doble, P. (2013) Calibration and field application of Chemcatcher® passive samplers for detecting amitrole residues in agricultural drain waters. *Bull. Environ. Contam. Toxicol.* 90(6): 635-639.
- 16) Tennekes, H.A. and **Sánchez-Bayo, F.** (2013) The molecular basis of simple relationships between exposure concentration and toxic effects with time. *Toxicology* 309: 39-51.
- 17) Mason, R, Tennekes, H.A, **Sánchez-Bayo, F.** and Jepsen, P.U. (2013) Immune suppression by neonicotinoid insecticides at the root of global wildlife declines. *J. Environ. Immunol. Toxicol.* 1(1): 3-12.

- 18) Hayasaka, D., Suzuki, K., Nomura, T., Nishiyama, M., Nagai, T., **Sanchez-Bayo, F.** and Goka, K. (2013). Comparison of acute toxicity of two neonicotinoid insecticides, imidacloprid and clothianidin, to five cladoceran species. *J. Pestic. Sci.* 38(1): 44-47.
- 19) **Sánchez-Bayo, F.** and Green, K. (2013) Australian snowpack disappearing under the influence of global warming and solar activity. *Arctic, Antarctic and Alpine Research* 45(1):107-118.
- 20) **Sánchez-Bayo, F.** (2012) Insecticides mode of action in relation to their toxicity to non-target organisms. *J. Environ. Anal. Toxicol.* S4: S4-002.
- 21) Tennekes, H.A. and **Sánchez-Bayo, F.** (2012) Time-dependent toxicity of neonicotinoids and other toxicants: Implications for a new approach to risk assessment. *J. Environ. Anal. Toxicol.* S4: S4-001.
- 22) Hayasaka, D, Korenaga, T., Suzuki, K., Saito, F., **Sánchez-Bayo, F.** and Goka, K. (2012) Cumulative ecological impacts of two successive annual treatments of imidacloprid and fipronil on aquatic communities of paddy mesocosms. *Ecotoxicol. Environ. Saf.* 80(6): 355-362.
- 23) **Sánchez-Bayo, F.** (2012) Should we forget NOECs? *Integr. Environ. Assess. Manage.* 8(3): 564-565.
- 24) **Sánchez-Bayo, F.** and Goka, K. (2012) Evaluation of suitable endpoints for assessing the impacts of toxicants at the community level. *Ecotoxicology* 21(3): 667-680.
- 25) Hayasaka, D, Korenaga, T., Suzuki, K., **Sánchez-Bayo, F.** and Goka, K. (2012) Differences in susceptibility of five cladoceran species to two systemic insecticides, imidacloprid and fipronil. *Ecotoxicology* 21(2): 421-427.
- 26) Hayasaka, D, Korenaga, T., **Sánchez-Bayo, F.** and Goka, K. (2012) Differences in ecological impacts of systemic insecticides with different physicochemical properties on biocenosis of experimental paddy fields. *Ecotoxicology* 21(1): 191-201.
- 27) **Sánchez-Bayo, F.** and Hyne, R.V. (2011) Comparison of environmental risks of pesticides between tropical and non-tropical regions. *Integr. Environ. Assess. Manage.* 7(4): 577-586.
- 28) **Sánchez-Bayo, F.**, Hyne, R.V. and Deseille, K.L. (2010) An amperometric method for the detection of amitrole, glyphosate and its aminomethyl-phosphonic acid metabolite in environmental waters using passive samplers. *Anal. Chim. Acta* 675(2): 125-131.
- 29) Hyne, R.V., Spolyarich, N., Wilson, S.P., Patra, R.W., Byrne, M., Gordon, G., **Sánchez-Bayo, F.** and Palmer, C.G. (2009) Distribution of frogs in rice bays within an irrigated agricultural area: links to pesticide usage and farm practices. *Environ. Toxicol. Chem.* 28(6): 1255-1265.
- 30) **Sánchez-Bayo, F.** (2009) From simple toxicological models to prediction of toxic effects in time. *Ecotoxicology.* 18(3): 343-354.
- 31) Hyne, R.V., **Sánchez-Bayo, F.**, Bryan, A.D., Johnston, E.L. and Mann, R.M. (2009) Fatty acid composition of the estuarine amphipod, *Melita plumulosa* (Zeidler): link between diet and fecundity. *Environ. Toxicol. Chem.* 28(1): 123-132.
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- 2) *Problems with current risk methods for assessing ecological impacts of chemicals*, for academic staff and postgraduate students of the Department of Environmental Sciences, UTS University, Sydney, May 2007
- 3) *Ecological effects of an insecticide and a pollutant biocide in rice paddies*, for research staff of the National Institute of Environmental Studies (NIES), Tsukuba, Ibaraki (Japan), March 2005

- 4) *Ecological effects of an insecticide and a pollutant biocide in rice paddies*, for academic staff and students of the Faculty of Horticulture, Chiba University, Matsudo (Japan), January 2005
- 5) *Monitoring of pesticide residues in the environment and produce: data collection and collation*, for attendants of 1st Workshop on “Environmental Risk Assessment, Monitoring & Remedial Action for Pesticide Residues” (AusAID CARD), at the Post-Harvest Technology Institute, Ho Chi Minh City (Vietnam), 18-20 March, 2002
- 6) *Environmental risk assessment of pesticides*, for attendants of 1st Workshop on “Environmental Risk Assessment, Monitoring & Remedial Action for Pesticide Residues” (AusAID CARD), at the Post-Harvest Technology Institute, Ho Chi Minh City (Vietnam), 18-20 March, 2002
- 7) *New approaches to environmental risk assessment of agrochemicals*, for postgraduate and academic staff at Dept. Agricultural Chemistry & Soil Science, The University of Sydney (Australia), March 2001
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- 9) *Environmental risk assessment*, for professionals and academic staff from China visiting The University of Sydney, (Australia), July 2000
- 10) *Relative risk index for assessing the ecological risk of pesticides in crop production*, for postgraduate and academic staff at Dept. Plant Protection (Entomology), Zhejiang University, Hangzhou (China), November 1999
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- 12) *Woody weeds: are they really weeds?* to postgraduate and academic staff at Dept. Ecosystems Management, University of New England, Armidale (Australia), March 1993
- 13) *Use of remote sensing for rangeland management*, for undergraduate and postgraduate students at Dept. Wool & Pastoral Sciences, University of New South Wales (Australia), October 1988
- 14) *Spatial and temporal distribution of birds along a river forest*, for postgraduate students and academic staff at Dept. Ecología, Universidad Complutense de Madrid (Spain), October 1985
- 15) *New approach to the theory of evolution*, for undergraduate students, Centro Cultural Niara, Valladolid (Spain), 1985
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