Curriculum vitae

**Personalia**

Name: Sander Wijnhoven

Adress: Leeuwerikhof 16

4451 CW Heinkenszand

Netherlands

Place of birth: Lieshout (NL)

Date of birth: 05-08-1973

Nationality: Dutch

Gender: Male

Marital status: Married

**Work experience**

2016 – now:

Owner of / Scientist at **Ecoauthor** – Scientific Writing and Ecological Expertise.

- Providing ecological services and advice, carrying out ecological projects and preparing reports and other scientific output for principals and customers.

- Applied research and monitoring especially related to the Dutch marine and estuarine waters.

- Participation in scientific networks and research programs.

Representing the Netherlands amongst others in:

- OSPAR – Benthic Habitat Expert Group (OBHEG) since 2018.

- EU MSFD CIS TG-Seabed (Marine Strategy Framework Directive - Common Implementation Strategy - Technical Group on seabed habitats and sea-floor integrity) since 2019.

- Providing services related to scientific publishing and the process of converting ecological research and monitoring data or other interesting observations and scientific results into international scientific papers.

2011 **–** 2016:

Researcher/Projectleader of the Monitor Taskforce (MON) of the Royal Netherlands Institute for Sea Research (NIOZ). Initiating, managing and executing applied research projects and desk studies, and participating in European projects and networks. Reporting and publishing of research project results or on basis of historical data. Core activities in the domain of benthic ecology, community analyses, system evaluations, impact studies, indicator development and ecology of non-indigenous species.

2008 **–** 2011:

Post-doctoral researcher/Projectleader of the Monitor Taskforce (MON) of the Netherlands Institute of Ecology (NIOO-KNAW), Centre for Estuarine and Marine Ecology (CEME). Initiating, managing and executing applied research projects and desk studies, and participating in European projects and networks.

**2006 – 2008:**

Junior researcher of MON of the NIOO-KNAW, CEME. Ecological research on macrozoobenthic communities of the Dutch delta waters and the North Sea on project basis and on basis of historical data.

**2005 – 2006:**

Junior researcher of the Centre for Sustainable Management of Resources (CSMR) at the Radboud University (RU Nijmegen), working in ecological risk assessment, ecological monitoring and impact assessment studies related to cyclic rejuvenation measures in floodplains.

**2000 – 2004:**

Junior researcher (PhD) at the departments of Environmental Sciences (Nature Conservation of Stream Corridors) and Animal Ecology of the University of Nijmegen (KUN), within the frame of the NWO-SSEO program (System Oriented Ecotoxicological Research); investigating small mammal – heavy metal pollutants interactions in floodplain systems (e.g. flooding ecology of small mammals and recolonization of periodically flooded areas, bioturbation effects on heavy metal distribution, accumulation of heavy metals in the foodweb).

**1999 – 2000:**

Contract researcher at the departments of Evolutionairy Microbiology (KUN) and Aquatic Ecology (KUN), working on the genetic diversity and biogeography of aquatic bivalves and snails.

**1998 – 2000:**

Travel guide for ‘SNP Natuurreizen’ (Hiking and Nature Tours in Turkey, Thailand, Poland, Spain, Italy and Switserland).

**1998 – 1999:**

Researcher on voluntary basis at the department of Aquatic Ecology (KUN) working on invasive species (Gammaridae) in the river Rhine tributaries.

**Studies**

**2007: Received the degree of Doctor at the RU Nijmegen.**

**1992 – 1997:**

**Bachelor and Master studies in** Biology (direction General Ecology) at the KUN with three internships on the following topics:

- Investigating the function of seagrass meadows for reef fishes at the ‘Universitas Hassanudin’, Ujung Pandang, Indonesia (UNHAS) and the department of Environmental Sciences (KUN).

- Research on the temperature dependent growth of perches (Perca fluviatilis) at the NIOO, Centre for Limnology (NIOO-CL) and at the department of Aquatic Ecology (KUN).

- Research on the stress response of Salmonidae at the department of Animal Physiology (KUN) and the Norwegian Institute for Freshwater Research (NIVA).

**Additional courses**

2018: FOET (Further Offshore Safety Emergency Training) (STC-KNRM, Rotterdam)

2016: Scientific computing in R - R statistics (NIOZ, Yerseke)

2014: BOSIET (Universal Basic Survival) (STC-KNRM, Rotterdam)

2008: Personal Survival Techniques from Basic Safety Training (Falck Nutec, Maasvlakte)

2007: Introduction course ArcGIS (ESRI Nederland)

2004: Scientific writing in English (KUN)

2003: Science Journalism (KUN)

2003: Bahasa Indonesia (KUN)

2001: Course Laboratory Animal Science and in vitro alternatives (article 9 functionary) (KUN / University of Utrecht)

2000: Community ecotoxicology (SENSE Research School)

1998: Driving license B

1997: Diving certificate (2-stars/Rescue diver) (CMAS/NOB)

**Other experience**

- Supervised a large amount of BSc and MSc students during their research internships and theses.

- Gave several lectures at the RU Nijmegen and the University College Roosevelt Academy Middelburg and was three times co-organizer and lector of the Marine Biology Summer School for MSc and PhD students at Hel Marine Station (Poland).

- Frequently presented research findings at international conferences, symposia (e.g. SETAC Europe, ASLO meeting, EMBS symposia, WCMB conference, ECSA symposia, NAEM meetings, Rodens et Spatium Conference) and in international expert groups (OSPAR-BHEG, EU MSFD CIS TG-Seabed).

- Organized workshops for European projects (e.g. for the FP7 projects Lifewatch and JERICO and H2020 project EcoPotential).

**Recent projects**

- Development of Benthic Indicator Species Index (BISI) for evaluation of benthic habitat quality status and sea floor integrity:

- Development of BISI for generic application in the European context with assessment tools developed at the level of broad habitat types and applicable for compiled areas in OSPAR region II (Greater North Sea) in particular, including alignment within OSPAR. Ecoauthor-project 2018-2019 commissioned by the Ministry of Agriculture, Nature and Food Quality (LNV).

- Development of BISI for evaluation of marine and estuarine Habitat Directive habitats and areas in the Netherlands including elaboration of the associated monitoring programme. Ecoauthor-project 2018-2019 commissioned by the Ministry of Infrastructure and Water management (I&W), carried out in cooperation with AMAECON.

- Development National Benthos Indicator North Sea: Developing a benthic community based evaluation tool for the Dutch North Sea to be applied as part of the MSFD evaluations, Nature 2000 evaluations and evaluation of effectivity of management and regulations in specified areas. Ecoauthor-project 2016-2017 commissioned by the Ministry of Economic Affairs (EZ) in cooperation with the Ministry of Infrastructure and Environment (I&M), carried out in cooperation with Wageningen Marine Research (WMR).

- Evaluations and advice with regards to the MSFD benthos monitoring programme in the Netherlands:

- Providing overview and planning of benthos dredge samples, available from Legal Research Assignments (WOt) as taken by WMR, selected for MSFD evaluations. Ecoauthor-project 2020 commissioned by the Marine Information and Data Centre (IHM) and I&W.

- Update of Marine Strategy part 2 (MSFD monitoring) with regards to MSFD indicators D6C3 (Habitat quality status and impact of physical disturbance) and D6C5 (Biodiversity status within benthic habitats). Ecoauthor-project 2019 commissioned by LNV, I&W and WMR.

- Evaluation of MSFD benthos monitoring as executed in 2018; planning and advice with regards to procedures and planning (including overview monitoring locations with characteristics and prioritization). Ecoauthor-projects 2018-2019 commissioned by LNV and I&W carried out in cooperation with AMAECON.

- Planning additional and moving existing benthos monitoring sites to allow evaluation of the effectivity of management measures in and around the Frisian Front, the Central Oystergrounds and the Cleaver Bank in the future. Ecoauthor-project 2017-2018 commissioned by I&M in cooperation with EZ, carried out in cooperation with WMR.

- Quality assessments and evaluation sea-floor integrity:

- Reporting under Article 17 of the Habitat Directive with regards to HD habitat types H1110 (Permanently submersed sandbanks) and H1170 (Reefs) in the Netherlands. Ecoauthor-project 2018-2019 commissioned by Wageningen Environmental Research (WEnR).

- Reporting with regards to MSFD indicator D6C3/D6C5 (benthic habitat quality and sea-floor disturbance) for the Dutch Marine Strategy (part 1); including T0 evaluation of quality status of the Dutch North Sea on basis of the BISI: Evaluation of current (2015) status and recent historic developments in areas with special ecological values (ASEVs), EUNIS ecotopes and HD habitat types of the Dutch Economic Zone, including definition of the pristine reference on basis of historic data and literature. Ecoauthor-project 2016-2017 commissioned by EZ in cooperation with I&M, carried out in cooperation with WMR.

- Monitoring and reporting with regards to non-indigenous species (NIS):

- Overview report on current status of monitoring efforts and presence of alien species among macrofauna and algae in the Western Scheldt. Ecoauthor-project 2016-2017 commissioned by the Netherlands Food and Consumer Product Safety Authority (NVWA) in cooperation with GiMaRIS and eCOAST.

- Transect monitoring Western Scheldt 2016-2017: Monitoring intertidal hard substrate benthic macrofauna and macro-algae communities along the estuarine gradient of the Western Scheldt in 2016 and 2017 with the focus on non-indigenous species. Ecoauthor-project commissioned by the NVWA.

- SEFINS estuarine non-indigenous species: Pilot research project including an inventory of estuarine non-indigenous species on hard substrates (Comparative study of three European estuaries in 2015 with the Scheldt estuary as the core system, within the frame of the INTERREG IVa project SEFINS; NIOZ-project commissioned by the NVWA.

- Selection and evaluation of species for the EU exotic species directive: Role of ‘Species group secretary for Marine species’ on behalf of NIOZ in collaboration with the Netherlands Expertise Centre-Exotic Species (NEC-E), commissioned by the NVWA.

- Ecological advice and preparation of monitoring and evaluation plans:

- Preparation of monitoring plan ecology (2019-2025) to evaluate possible effects of and recovery after foreshore reinforcement works in the Western - and Eastern Scheldt. Ecoauthor project 2018 in cooperation with AMAECON commissioned by I&W.

- Preparation of Plan of Approach to investigate the recolonization process for medium deep sand extraction in the Dutch North Sea with regards to the Monitoring and Evaluation Programme (MEP) Sand Extractions 2018-2027. Ecoauthor project 2018 as commissioned by I&W.

- Tasks (text and data reviews) related to the preparation and presentation of the Dutch Living Planet Index and Living Planet Report for marine and ‘salty’ nature, and taxonomic assistance and categorization of benthic species towards different traits. Several tasks commissioned by WWF – The Netherlands and Statistics Netherlands (CBS).

- Participation in European projects:

- EcoPotential: Task to deliver practical tools (Essential Environmental and Socio-Economic Descriptors) to describe the quality status and needs of (future) protected areas to counter large-scale changes and towards a better protection status, as part of the EU H2020 project EcoPotential (Improving future ecosystem benefits through earth observations). NIOZ-project 2016.

- JERICO: Development of a strategy for JERICO to become a network for biodiversity observation as well, within the frame of the EU FP7 project JERICO (Joint European Research Infrastructure Network for Coastal Observatories). NIOZ-project 2014.

**Scientific publications**

**Sander is (co-)author of 35 peer-reviewed scientific publications (h-index = 14), and besides his PhD-thesis (co-) auteur of 5 book chapters and (co-)author of a large amount of scientific reports (see Annexes).**

**Annex 1:**

**Peer-reviewed publications**

- Verbrugge, L.N.H., De Hoop, L., Aukema, R. Beringen, R., Creemers, R.C.M., Van Duinen, G.A., Hollander, H., De Hullu, E., Scherpenisse, M., Spikmans, F., Van Turnhout, C.A.M., Wijnhoven, S., Leuven, R.S.E.W. (2019). Lessons learned from rapid environmental risk assessments for prioritization of alien species using expert panels. Journal of Environmental Management 249, 109405.

- Wijnhoven, S., Zwiep, K.L., Hummel, H. (2018). First description of epizoic ciliates (Sessilida Stein, 1933) on Bathyporeia Lindström, 1855 (Crustacea: Amphipoda) and infestation patterns in brackish and marine waters. Crustaceana 91(2), 133-152.

- Hummel, C., Provenzale, A., van der Meer, J., Wijnhoven, S., Nolte, A., Poursanidis, D., Janss, G., Jurek, M., Andresen, M., Poulin, B., Kobler, J., Beierkuhnlein, C., Honrado, J., Razinkovas, A., Stritih, A., Bargmann, T., Ziemba, A., Bonet-García, F., Adamescu, M.C., Janssen, G., Hummel, H. (2017). Ecosystem services in European protected areas: Ambiguity in the views of scientists and managers? PLoS ONE 12(11), e0187143.

- Hummel, H., Van Avesaath, P., Wijnhoven, S., Kleine-Schaars, L., Degraer, S., Kerckhof, F., Bojanic, N., Skejic, S., Vidjak, O., Rousou, M., Orav-Kotta, H., Kotta, J., Jourde, J., Pedrotti, M.L., Leclerc, J.-C., Simon, N., Rigaut-Jalabert, F., Bachelet, G., Lavesque, N., Arvanitidis, C., Pavloudi, C., Faulwetter, S., Crowe, T., Coughlan, J., Benedetti-Cecchi, L., Dal Bello, M., Magni, P., Como, S., Coppa, S., Ikauniece, A., Ruginis, T., Jankowska, E., Weslawski, J.M., Warzocha, J., Gromisz, S., Witalis, B., Silva, T., Ribeiro, P., Fernandes De Matos, V.K., Sousa-Pinto, I., Veiga, P., Troncoso, J., Guinda, X., Juanes De La Pena, J.A., Puente, A., Espinosa, F., Pérez-Ruzafa, A., Frost, M., Mcneill, C.L., Peleg, O. and Rilov, G. (2016). Geographic patterns of biodiversity in European coastal marine benthos. Journal of the Marine Biological Association of the United Kingdom, Published online doi: 10.1017/S0025315416001119, pp. 1–17.

- Van der Gaag, M., Van der Velde, G., Leuven, R.S.E.W., Wijnhoven, S. (2016). Salinity as a barrier for shiphull-related dispersal and invasiveness of dreissenid and mytilid bivalves. Marine Biology 163, 147.

- Pronker, A.E., Peene, F., Donner, S., Wijnhoven, S., Geijsen, P., Bossier, P., Nevejan, N.M. (2015). Hatchery cultivation of the common cockle (Cerastoderma edule L.): from conditioning to grow-out. Aquaculture Research 46, 302–312.

- Van der Gaag, M., Van der Velde, G., Wijnhoven, S., Rajagopal, S. (2014). Temperature dependent larval occurrence and spat settlement of the invasive brackish water bivalve Mytilopsis leucophaeta (Conrad, 1831) (Dreissenidae). Journal of Sea Research 87, 30-34.

- Hummel, H., Wijnhoven, S. (2014). Long-term patterns in the establishment, expansion and decline of invading macrozoobenthic species in the brackish and marine waters of Southwest Netherlands. Marine Ecology 35(suppl. 1), 50-55.

- Van den Brink, F.W.B., Van der Velde, G., Wijnhoven, S. (2013). Seasonal changes in caddisfly larval assemblages in river-floodplain habitats along a connectivity gradient. Hydrobiologia 716, 75–85.

- Walker, P.D., Wijnhoven, S., Van der Velde, G. (2013). Macrophyte presence and growth form influence macroinvertebrate community structure. Aquatic Botany 104, 80-87.

- Van den Brink, F.W.B., Van der Velde, G., Wijnhoven, S. (2013). Diversity, occurrence and feeding traits of caddisfly larvae as indicators for ecological integrity of river-floodplain habitats along a connectivity gradient. Ecological Indicators 25, 92-98.

- Van den Brink, A.M., Wijnhoven, S., McLay, C.L. (2012). Competition and niche segregation following the arrival of Hemigrapsus takanoi in the formerly Carcinus maenas dominated Dutch delta. Journal of Sea Research 73, 126-136.

- Hutchings, P., Glasby, C.J., Wijnhoven, S. (2012). Note on additional diagnostic characters for Marphysa sanguinea (Montagu, 1813) (Annelida: Eunicida: Eunicidae), a recently introduced species in the Netherlands. Aquatic Invasions 7, 277-282.

- Schipper, A.M., Wijnhoven, S., Baveco, H., Van den Brink, N.W. (2012). Contamination exposure in relation to spatio-temporal variation in diet composition: A case study of the little owl (Athene noctua). Environmental Pollution 163, 109-116.

- Wijnhoven, S., Hummel, H. (2011). Patterns in macrozoobenthic assemblages indicating the state of the environment: insights from the drastically changed Rhine-Meuse estuary. Marine Ecology Progress Series 436, 29-50.

- Wijnhoven, S., Van der Velde, G., Hummel, H. (2011). Is Corophium multisetosum Stock, 1952 an exotic invasive species in Europe? Distribution, habitat and recent observations in the Netherlands. Crustaceana 84, 975-1011.

- Wijnhoven, S., Escaravage, V., Herman, P.M.J., Smaal, A.C., Hummel, H. (2011). Short and mid-long term effects of cockle-dredging on non-target macrobenthic species: A Before-After-Control-Impact experiment on a tidal mudflat in the Oosterschelde (The Netherlands). Marine Ecology 32(s1), 117-129.

- Wijnhoven, S., Dekker, A. (2010). Records of a new alien polychaete worm species, Marphysa sanguinea (Montagu, 1815) (Eunicidae) in the Eastern Scheldt, the Netherlands. Aquatic Invasions 5, 431-436.

- Wijnhoven, S., Escaravage, V., Daemen, E., Hummel, H. (2010). The decline and restoration of a coastal lagoon (Lake Veere) in the Dutch Delta. Estuaries and Coasts 33, 1261-1278.

- Engelsma, M.Y., Kerkhoff, S., Roozenburg, I., Haenen, O.L.M., Van Gool, A., Sistermans, W., Wijnhoven, S., Hummel, H. (2010). Epidemiology of Bonamia ostreae infecting European flat oysters Ostrea edulis from Lake Grevelingen, The Netherlands. Marine Ecology Progress Series 409, 131-142.

- Wijnhoven, S., Sistermans, W., Hummel, H. (2008). Historic developments in macrozoobenthos of the Rhine-Meuse estuary: From a tidal inlet to a freshwater lake. Estuarine, Coastal and Shelf Science 76, 95-110.

- Wijnhoven, S., Leuven, R.S.E.W., Van der Velde, G., Eijsackers, H.J.P. (2008). Toxicological risks for small mammals in a diffusely and moderately polluted floodplain. Science of the Total Environment 406, 401-406.

- Schipper, A.M., Loos, M., Ragas, A.M.J., Lopes, J.P.C., Nolte, B.T., Wijnhoven, S., Leuven, R.S.E.W. (2008). Modeling the influence of environmental heterogeneity on heavy metal exposure concentrations for terrestrial vertebrates in river floodplains. Environmental Toxicology and Chemistry 27, 919-932.

- Schipper, A.M., Wijnhoven, S., Leuven, R.S.E.W., Ragas, A.M.J., Hendriks, A.J. (2008). Spatial distribution and internal metal concentrations of terrestrial arthropods in a moderately contaminated lowland floodplain along the Rhine River. Environmental Pollution 151, 17-26.

- Wijnhoven, S., Leuven, R.S.E.W., Van der Velde, G., Jungheim, G., Koelemij, E.I., De Vries, F.T., Eijsackers, H.J.P., Smits, A.J.M. (2007). Heavy metal concentrations in small mammals from a diffusely polluted floodplain: Importance of species- and location-specific characteristics. Archives of Environmental Contamination and Toxicology 52, 603-613.

- Veltman, K., Huijbregts, M.A.J., Hamers, T., Wijnhoven, S., Hendriks, A.J. (2007). Cadmium accumulation in herbivorous and carnivorous small mammals: Meta-analysis of field data and validation of the bioaccumulation model optimal modeling for ecotoxicological applications. Environmental Toxicology and Chemistry 26, 1488-1496.

- Wijnhoven, S., Van der Velde, G., Leuven, R.S.E.W., Eijsackers, H.J.P., Smits, A.J.M. (2006). Metal accumulation risks in regularly flooded and non-flooded parts of floodplains of the river Rhine: Extractability and exposure through the food chain. Chemistry and Ecology 22, 463-477.

- Wijnhoven, S., Thonon, I., Van der Velde, G., Leuven, R.S.E.W., Zorn, M.I., Eijsackers, H.J.P., Smits, A.J.M. (2006). The impact of bioturbation by small mammals on heavy metal redistribution in an embanked floodplain of the river Rhine. Water, Air & Soil Pollution 177, 183-210.

- Wijnhoven, S., Van der Velde, G., Leuven, R.S.E.W., Smits, A.J.M. (2006). Modelling recolonisation of heterogeneous river floodplains by small mammals. Hydrobiologia 565, 135-152.

- Wijnhoven, S., Van der Velde, G., Leuven, R.S.E.W., Eijsackers, H.J.P., Smits, A.J.M. (2006). The effect of turbation on zinc relocation in a vertical floodplain soil profile. Environmental Pollution 140, 444-452.

- Wijnhoven, S., Van der Velde, G., Leuven, R.S.E.W., Smits, A.J.M. (2005). Flooding ecology of voles, mice and shrews: the importance of geomorphological and vegetational heterogeneity in river floodplains. Acta Theriologica 50, 453-472.

- Leuven, R.S.E.W., Wijnhoven, S., Kooistra, L, De Nooij, R.J.W., Huijbregts, M.A.J. (2005). Toxicological constraints for rehabilitation of riverine habitats: a case study for metal contamination of floodplain soils along the Rhine. Archiv für Hydrobiologie Supplement 155, 657-676.

- Wijnhoven S., Van Riel, M.C., Van der Velde, G. (2003). Reply to comments on Wijnhoven et al. (2003). Aquatic Ecology 37, 449-451.

- Wijnhoven, S., Van Riel, M.C., Van der Velde, G. (2003). Exotic and indigenous freshwater gammarid species: Physiological tolerance to water temperature in relation to ionic content of the water. Aquatic Ecology 37, 151-158.

- Mooij, W.M., Van Rooij, J.M., Wijnhoven, S. (1999). Analysis and comparison of fish growth from small samples of length-at-age data: Detection of sexual dimorphism in Eurasian perch as an example. Transactions of the American Fisheries Society 128, 483-490.

**Annex 2:**

**Book chapters**

- Daan, R., Wijnhoven, S., Dekker, R., van Leeuwen, S. (2013). Leefgebieden voor weekdieren. Hoofdstuk 3 in: De Bruyne, R.H., van Leeuwen, S.J., Gmelig Meyling, A.W., Daan, R. (red.), Schelpdieren van het Nederlandse Noordzeegebied. Ecologische atlas van de mariene weekdieren (Mollusca). Uitgeverij Tirion, Utrecht en Stichting ANEMOON, Lisse, p. 23-34 (in Dutch).

- Daan, R., de Bruyne, R., Wijnhoven, S., Kuijper, W., Faasse, M., van Moorsel, G., Gmelig Meyling, A., van Leeuwen, S. (2013). Tweekleppigen – Bivalvia. Hoofdstuk 7 in: De Bruyne, R.H., van Leeuwen, S.J., Gmelig Meyling, A.W., Daan, R. (red.), Schelpdieren van het Nederlandse Noordzeegebied. Ecologische atlas van de mariene weekdieren (Mollusca). Uitgeverij Tirion, Utrecht en Stichting ANEMOON, Lisse, p. 47-174 (in Dutch).

- De Bruyne, R., Daan, R., Faasse, M., Kuijper, W., Wijnhoven, S., Gmelig Meyling, A., van Leeuwen, S. (2013). Huisjesslakken – Gastropoda. Hoofdstuk 8 in: De Bruyne, R.H., van Leeuwen, S.J., Gmelig Meyling, A.W., Daan, R. (red.), Schelpdieren van het Nederlandse Noordzeegebied. Ecologische atlas van de mariene weekdieren (Mollusca). Uitgeverij Tirion, Utrecht en Stichting ANEMOON, Lisse, p. 175-262 (in Dutch).

- Hummel, H., Sokolowski, A., Hummel, C., Wijnhoven, S. (2010). Tolerance to natural environmental change and the effect of added chemical stress. Chapter 5 in: C. Amiard-Triquet, P. Rainbow & M. Roméo (Eds.). Tolerance to environmental contaminants. CRC Press, p. 109-124.

- Wijnhoven, S., Hummel, H., Escaravage, V. (2009). Ruim 50 jaar mollusken onderzoek in de Delta. Ontwikkelingen in het onderzoek aan het NIOO-CEME en zijn voorlopers. In: Cadee, G.C., van Leeuwen, S., ter Poorten, J.J. (eds.). Schitterende schelpen en slijmerige slakken: 75 jaar NMV: malacologie als hobby en professie. pp. 100-105 (in Dutch).

**PhD-thesis**

- Wijnhoven, S. (2007). Small mammal - heavy metal interactions in contaminated floodplains. Bioturbation and accumulation in periodically flooded environments. PhD-thesis, RU Nijmegen.

**Annex 3:**

**Scientific reports**

- Wijnhoven, S. (2020). Notitie: Overzicht te gebruiken ‘schaaf’-monsters van de kustzone van de Noordzee voor KRM beoordelingen periode 2014-2018. Ecoauthor Notitie 31 januari 2020. Met digitale bijlage: ‘WMR monsters tbv KRM beoordeling 2015\_2018\_SW300120.xlsx’ (in Dutch).

- Wijnhoven, S. (2020). Notitie bevindingen met betrekking tot de door WMR aan IHM geleverde benthosdata ten behoeve van het KRM monitoringprogramma. Ecoauthor Notitie 8 januari 2020. Met digitale bijlage: ‘Benthos data WMR\_ SW080120.xlsx’ (in Dutch).

- Wijnhoven, S. (2019). Protocol Benthic Indicator Species Index (BISI): Protocol BISI for generic application (BISI v2). Version v311219 as an update of v181218. Ecoauthor Report Series 2019 - 05, Heinkenszand, the Netherlands.

- Van Avesaath, P.H. & Wijnhoven, S. (2019). Overzicht beschikbaarheid, bruikbaarheid en eventuele tekortkomingen benthosdata mariene HR-gebieden. Korte analyse databestanden Deltawateren, het Waddenzeegebied en de kustzone van de Noordzee naar aanleiding van gebruik ten behoeve van ontwikkeling Benthische Indicator Soorten Index (BISI) voor Habitatrichtlijn (HR)-habitats. Ecoauthor Report Series 2019 - 04, Heinkenszand, the Netherlands (in Dutch).

- Wijnhoven, S. & Van Avesaath, P.H. (2019). Benthische Indicator Soorten Index (BISI) voor mariene habitattypen in Natura 2000-gebieden. Uitwerking beoordelingsmethodiek inclusief monitoringvoorstel voor mariene habitattypen van de Habitatrichtlijn gelegen in de Deltawateren, het Waddenzeegebied en de kustzone van de Noordzee. Ecoauthor Report Series 2019 - 03, Heinkenszand, the Netherlands (in Dutch).

- Wijnhoven, S. (2019). Advies en evaluatie benthosbemonstering Noordzee: Update van het adviesrapport en benthos meetlocatie overzicht van 2018 naar aanleiding van verdere afstemming met de meetprogramma’s in de kustzone van de Noordzee. Ecoauthor Report Series 2019 - 02, Heinkenszand, the Netherlands (in Dutch).

- Wijnhoven, S. (2019). Afstemming benthosbemonstering kustzone van de Noordzee. Verslag en bevindingen afstemming meetplanning ten behoeve van de KRM en de WOt. Ecoauthor Report Series 2019 - 01, Heinkenszand, the Netherlands (in Dutch).

- OSPAR (2019). OSPAR- Biodiversity Indicators. Candidate Indicator Typical Species Composition (BH1). Updated DRAFT Generic guidelines for Coordinated Environmental Monitoring Programme (CEMP), version 2019.

- Janssen, J., Bijlsma, R.-J., Arts, G., Baptist, M., Hennekens, S., De Knegt, B., Van der Meij, T., Schaminée, J., Van Strien, A., Wijnhoven, S., Ysebaert, T. (2019). Habitatrichtlijn rapportage habitattypen 2019. Technische achtergrondrapportage. Wageningen University & Research, WOt-technical report XX (in Dutch).

- Wijnhoven, S. (2018). Advies en evaluatie benthosbemonstering Noordzee: Evaluatie benthosbemonstering Noordzee zoals uitgevoerd in 2018 en advisering met betrekking tot benthosmonitoring 2019 en periode 2020-2022. Ecoauthor Report Series 2018 - 06, Heinkenszand, the Netherlands (in Dutch).

- Wijnhoven, S. (2018). Protocol Benthic Indicator Species Index (BISI): Protocol BISI for generic application (BISI v2), v181218. Ecoauthor Report Series 2018 - 04, Heinkenszand, the Netherlands.

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