

# Curriculum vitae and publications

## Personal

**Name:** Flinkman Juha-Matti

**Social security number (Finnish national):** 031258-121F

**Place and date of birth:** Helsinki, Finland 3. December 1958

**Parents:** Matti Kalervo Flinkman and Lea Kyllikki Flinkman n.Vauhkonen

**Spouse:** Master of Science Maija Tuulikki Flinkman n. Soivio, Deputy Principal, Olari junior & high school of science (biology and geography).

**Children:** Karri Juhani 1988 and Otso Juhani 1992

## Education

**Graduation:** Apollon Yhteiskoulu 1977

**Master of Science examination:** University of Helsinki 28. May 1993.  
Majoring in Hydrobiology. Masters thesis in Hydrobiology.

**Licenciate of Philosophy examination:** University of Helsinki 6.6. 1997.  
Licensiate thesis in Hydrobiology

**Doctor of Philosophy examination:** University of Helsinki 18. 2. 2000.  
Doctoral thesis in Hydrobiology

## Diving and navigation skills

-**Diver** CMAS P3 FIN 350, NAUI Master Scuba Diver #031258

-**Diving instructor** CMAS M2 FIN 288

-**Professional diver (scientific SCUBA)** FIN 0000037

-**Scientific diver instructor (European Scientific Diving Standards)**

-**Advanced European Scientific Diver** #FI251005

-**IANTD Trimix Diver #934**

-**IANTD Advanced EAN Instructor #2519**

-**IANTD Gas Blender # 9259**

-**IANTD CCR Mine Diver #143606**

-**IANTD JJ-CCR Full Trimix rebreather diver #172076**

-**Master/engineer A II examination** (Coastal navigation). Institute of Navigation for Merchant Marine, Kotka, Finland. 15. February 1991

-**Fishing vessel Master/Engineer A/B examination.** Institute of Navigation for Merchant Marine, Kotka, Finland. 15. February 1991

-**Leisure craft master, Offshore level** (Including celestial navigation). Finnish Navigation Federation 23. April 1993

## **Working experience**

### **Finnish Institute of Fisheries and Game Research, Fisheries research department**

29.1. 1985-31.8. 1987 Assistant researcher  
1.9. 1987-30.4. 1991 Field station intendent  
1.5.-31.8. 1991 Assistant researcher  
1.11.-30.11. 1991 Assistant researcher  
1.11.-31.12. 1992 Assistant researcher

### **Finnish Institute of Marine Research:**

25.2.-30.6. 1993 Assistant researcher (Academy of Finland)  
1.8.-31.8. 1993 Assistant researcher (Academy of Finland)  
5.4.-30.6. 1994 Project secretary  
1.8.-30.9. 1994 Project secretary (Nesslingin Foundation)  
1. 3. 1999 – 30.4. 2001 Scientist  
1.5. 2001 – 31. 12. 2008 Senior scientist

### **Finnish Environment Institute, Marine Research Center:**

1. 1. 2009 – 28. 2. 2010 Senior scientist  
1. 3. 2010 – Developmen manager, research vessels (additional duties: underwater operations, manager of wreck register 2010 - 2013).

### **Ministry of Forestry, Archipelago Sea National Park**

1.4.-31.5. 1993 Preparation of an exhibition on fishery

### **University of Helsinki, teaching on courses:**

-2.8-9.8. 1993 Aquatic ecology for teachers  
-30.8.-3.9. 1993 Field Course in Ecology, brackish water ecology  
-24.10.-29.10. 1993 Ecology of the Baltic Sea.  
-7.12.-11.12. 1993 Baltic winter ecology  
-2.-7. 5. 1994 Brackish water ecology  
-6.3. - 10.3. 1995 Baltic winter ecology  
-weeks 35 ja 36 1995 Field Course in Ecology  
-1. 10. 1995-30.2. 2001 Diving Officer, Tvärminne Zoological Station, University of Helsinki  
-16. 4.-6.5. 1996 SCUBA research diving. Tvärminne (NorFa)  
-31.5 - 2.6. 1996 Basic SCUBA skills  
-24.-29 6. 1996 Biological sampling methods for SCUBA diving/Tvärminne  
-29.4. 1996 - 21.8. 1996 Scientific diver course, L-Uakk/Tvärminne  
-26.8. - 6.9. 1996 Field course in Ecology, archipelago ecology  
-14.7. - 27.7. 1997 Baltic pelagial food webs - special course for graduate students  
- Researcher 1.9. - 31. 12. 1997 (Academy of Finland).  
-31.5 - 2.6. 1998 Biological sampling methods for SCUBA diving/Tvärminne  
-24.-29 6. 1998 Biological sampling methods for SCUBA diving/Tvärminne  
-26. 2.-8.3. 1999 Ice and Biota-course Tvärminne/Kiel University

-28.7. – 9.8. 1999 and 1.-4. 11. 1999 Baltic zooplankton systematics and taxonomy. R/v Aranda & Tvärminne Zool. Station.

### **Awards**

ICES Service Award, Co-Chair ICES/BSRP/HELCOM workshop for developing a Framework for Integrated Assessment for the Baltic Sea (WKIAB). 30 Nov 2006

ICES Service award, Co-Chair ICES/HELCOM Working Group for Integrated Assessment of the Baltic Sea (WGIAB), 4 Dec 2009.

Knight of the Order of the Lion of Finland, 6 Dec 2014.

### **Grants for Scientific work**

Walter and Andrée de Nottbeckin Foundation, grant for licenciate- and doctoral thesis work 1.11. 1994 - 28.2. 1999.

### **Participation in international working groups**

Nordic Council of Ministries - funded research project 'Growth changes of herring in the Baltic Sea', Projektin leader Henrik Sparholt, ICES Palaægade 2-4, DK-1261 Copenhagen, Denmark.

Report: Growth Changes of Herring in the Baltic. TemaNord 1994:532

Scientific Diving workshop 1996 - 1998. European Commission, DG XII (Science, Research and Development; D-RTD Actions: Environment, Marine Sciences and Technologies.

ICES Working Group on Zooplankton Ecology, 2002 – 2010

HELCOM Zooplankton Expert Network, 2004-2010

ICES-HELCOM Working Group for Integrated Assessment of the Baltic Sea. Co-chair 2006-2010

SCOR Working Group 115, Zooplankton survey and methods 2005 –2010

SCOR Working Group 125, Plankton Time Series, 2006 -2012

International Polar Diving Workshop (IPY), Ny Ålesund, Svalbard March 2007

European Research Vessel Operators (ERVO) 2009 –

Interbational Research Ship Operators (IRSO) 2009 –

### **Scientific expeditions and visits to biological stations**

-Spitzbergen, August-September 1982.

-McKenzie-river delta, Northwest Territories, Canada. Sept.-Nov. 1984.

-Amazonia, Peru. Nov. 1985 - Jan. 1986.

-McKenzie-delta area, NWT, Canada. September-October 1986.

-Bamfield Marine Station, Bamfield, and Pacific Biological Station, Nanaimo, British Columbia. Oct.-Nov. 1986.

- Russian Academy of Science, Kartetš Biological Station. Kartetš, White Sea, Russia. Aug.-Sept 1994.

-Pacific Biological Station, Nanaimo, BC, and Bamfield Marine Station. BC, Canada. Nov. 1996

-Underwater work at Vrauw Maria wrecksite excavations, Archipelago Sea, Finland. 2000-2010

### **Participation in FORMIN appraisal team and ICI project work**

-Fishery/oceanography research vessel for Namibian Ministry of Fisheries and Marine Resources, December 2010

-FORMIN funded ICI project for enhancing the use of Namibian NatMIRC r/v Mirabilis 2012-2016

### **Military service**

1977 -1978 Frontier Guard Rangers, LR/2 (Lapland Company). Rank Sergeant, duties ranger/recon squad leader, ranger/recon platoon sgt.

### **Hobbies**

Diving and marine military history, [www.badewanne.fi](http://www.badewanne.fi)

Sailing. Helsingfors Segelsällskap r.f. (sailing club)

Hunting and bowhunting. Metsästysseura Jyrä r.y. (hunting club, chairman 2009 -)

Sports shooting. Sibbo Skyttegille (SSG) rf; Nokian Seudun Ampujat (NoSa) ry

Practical shooting. Haukilahden Urheiluampujat (HAUR ry.) IPSC and National Reservists certified shooter, National firearms instructor

### **Publications:**

#### **Scientific publications:**

1) Aro, E., Uitto, A., Vuorinen, I. ja **Flinkman, J.** 1986: The food selection of Baltic herring in late summer in the northern Baltic Sea. ICES C.M. 1986/J:26, Baltic Fish Committee. 19 s.

2) **Flinkman, J.**, Vuorinen, I. ja Aro, E. 1988: Be visible, die fast: The predation strategy of Baltic herring. ICES C.M. 1988/J:23, Baltic Fish Committee, Session R Poster, 8 s.

3) Aro, E., Vuorinen, I. ja **Flinkman J.** 1989: The prey preference of Baltic herring in the northern Baltic Sea. ICES C.M. 1989/J:14, Baltic Fish Committee. 28 s.

4) Aro, E., Pushkin, S., Kotilainen, P., Mamylov, V., **Flinkman J.** ja Diogtev, A. 1990: Estimation of changes in abundance of Baltic herring and sprat stocks by combined hydroacoustic-trawl survey in the Gulf of Finland in autumn, winter and spring. ICES C.M. 1990/J:28, Baltic Fish Committee. 23 s.

5) **Flinkman, J.**, Aro, E., Vuorinen, I. ja Kotilainen, P. 1991: The annual changes in food selection of Baltic herring. ICES C.M. 1991/J:14, Baltic Fish Committee. 11 s.

6) Aro, E., **Flinkman, J.**, Kotilainen, P., Raid, T. ja Lankov, A. 1991. Miksi osa silakoista on laihoja? Kalastaja 5:16-17.

7) **Flinkman J.**, Vuorinen, I. ja Aro, E. 1992: Planktivorous Baltic herring prey selectively on reproducing copepods and cladocerans. Can. J. Aquat. Sci. 49(1):73-77.

- 8) Aro, E., **Flinkman, J.** ja Kotilainen, P. 1992: Why some Baltic herring specimens are starved in the northern Baltic - are amount of food, reduction of cod predation or fisheries the reasons for low condition factors? ICES Working Group on Multispecies Assessment of Baltic Fish, Riga, Latvia 30.1.-6.2. 1992 (Working paper). 13 s.
- 9) Aro, E., Kotilainen, P. ja **Flinkman J.** 1992: Changes in the growth rate of Baltic herring: Why some specimens are starved in the northern Baltic. ICES C.M. 1992/J:4, Baltic Fish Committee. 22 s.
- 10) **Flinkman, J.**, Vuorinen, I., Hakala, I., Salemaa, H. ja Välipakka, P. 1993: Herring predation avoidance in northern Baltic copepods and mysids. ICES C.M. 1993/J:20, Baltic Fish Committee. 9 s.
- 11) **Flinkman, J.**, Hakala, I., Salemaa, H., and Välipakka, P. 1994: Migrations of the Baltic mysids and their relation to predation by fish. in symposium: Orientation and Migration in the Sea. A joint meeting of Marine biological Association of the UK and the Society for Experimental Biology, 18-21 April 1994.
- 12) **Flinkman, J.**, Vuorinen, I. ja Christiansen, M. 1994: Calanoid copepod eggs survive the passage through fish digestive tract. ICES J. Mar. Sci. 51:127-129.
- 13) Anon. 1994: Growth Changes of Herring in the Baltic. TemaNord 1994:532
- 14) **Flinkman, J.** (ed.) 1996: A summary of presentations and discussions during seminar held 10-11 May in Kotka, Finland. - Meri - Report series of the Finnish Institute of Marine Research. No. 26, 48 pp.
- 15) **Flinkman, J.**, Aro, E., Vuorinen, I., Viitasalo, M. 1998: Changes in northern Baltic zooplankton and herring nutrition from 1980s to 1990s: top-down and bottom-up processes at work. Marine Ecology Progress Series 165: 127-136
- 16) Viitasalo, M., Kiørboe, T., **Flinkman, J.**, Pedersen, L. W. and Visser, A. W. 1998: Predation vulnerability of planktonic copepods: consequences of predator foraging strategies and prey sensory abilities. Marine Ecology Progress Series 175: 129-142.
- 17) **Flinkman, J.** 1999: Interactions between plankton and planktivores of the northern Baltic Sea: selective predation and predation avoidance. Walter and André de Nottbeck Foundation Scientific Reports No. 18, ISBN 951-97529-7-8.
- 18) Viherluoto, M, Kuosa, H, **Flinkman, J.**, Viitasalo, M. (1999) Food utilisation of pelagic mysids, *Mysis mixta* and *M. relicta* during their growing season in the northern Baltic Sea. Marine Biology 136:553-559.
- 19) Viitasalo, M., **Flinkman, J.** and Viherluoto, M. (2000): Zooplanktivory in the Baltic Sea: the comparison of prey selectivity by *Clupea harengus* and *Mysis mixta*, with reference to prey escape reactions. Marine Ecology Progress Series, in press.

- 20) Sipiä, V, H. Kankaanpää, **J. Flinkman**, K. Lahti and J.A.O. Meriluoto (2001): Time-dependent accumulation of Cyanobacterial hepatotoxins in flounders (*Platichthys flesus*) and mussels (*Mytilus edulis*) from the northern Baltic Sea. *Environmental Toxicology and Water Research*, 16:330-336
- 21) Sipiä V.O, Kankaanpää H.T, Pfulgmacher S, **Flinkman J**, Furey A, James K.J (2002): Bioaccumulation and detoxication of nodularin in tissues of flounder (*Platichthys flesus*), mussels (*Mytilus edulis*, *Dreissena polymorpha*) and clams (*Macoma bathica*) from the northern Baltic Sea. *Ecotoxicology and environmental safety* 53, 305-311.
- 22) Hakala, T., Viitasalo, M., Rita, H., Aro, E., **Flinkman, J.**, Vuorinen, I. (2003): Temporal and spatial variation in the growth rates of Baltic herring (*Clupea harengus membras* L.) larvae during summer. *Marine Biology* 142: 25-33.
- 23) Batten S.D, Clarke, R, **Flinkman J**, Hays G, John E, John A.W.G, Jonas T, Lindley J.A, Stevens D.P, & Walne A. 2003. CPR sampling: the technical background, materials and methods, consistency and comparability. *Progress in Oceanography*, 58, 193-215.
- 24) Anon. 2008: ICES Zooplankton status report 2006/2007. ICES Cooperative Research Report no. 292, special issue.
- 25) Möllmann C, Müller-Karulis B, Diekmann R, **Flinkman J**, Kornilovs G, Lysiak-Pastuszek E, Modin J, Plikshs M, Walther Y, and Wasmund N: (2006): An Integrated Ecosystem Assessment of the Central Baltic Sea and the Gulf of Riga. ICES CM 2006/P:03.
- 26) HELCOM 2009: Biodiversity in the Baltic Sea – An integrated thematic assessment on biodiversity and nature conservation in the Baltic Sea. *Balt. Sea. Environ. Proc.* No. 116B
- 27) Cardinale M., Möllmann C., Bartolino V., Casini M., Kornilovs G., Raid T., Margonski P., Grzyb A., Raitaniemi J., Gröhsler T. and **Flinkman J**. 2009. Effect of environmental variability and spawner characteristics on the recruitment of Baltic herring (*Clupea harengus membras*) populations. *Marine Ecology Progress Series*, Vol. 388: 221-234.
- 28) Raateoja M., Kuosa H., **Flinkman J**, Perttilä M 2010: Late summer metalimnetic oxygen minimum zone in the northern Baltic Sea. *Journal of Marine Systems* 80 (1) :1-7
- 29) Anon. 2010: Integrated ecosystem assessment of seven Baltic Sea areas covering the last three decades. ICES Cooperative Reserch Report no. 302.
- 30) Leino M, Ruuskanen A. T, **Flinkman J**, Kaasinen J, Klemelä U. E, Hietala R and Nappu N. 2011. The Natural Environment of the Shipwreck *Vrouw Maria* (1771) in the Northern Baltic Sea: an assessment of her state of preservation. *International Journal of Nautical Archaeology*, Vol 40, Issue 1: 133-150.
- 31) Casini M, Kornilovs G, Cardinale M, Möllman C, Grygiel W, Jonsson P, Raid T, **Flinkman J** and Feldman V 2011: Spatial and temporal density dependence regulates the condition of central Baltic Sea clupeids: compelling evidence using an extensive international acoustic survey. *Population Ecology* DOI 10.1007/s10144-011-0269-2.

32) Lehto J, Rätty T, Hou X, Paatero J, Aldahan A, Possnert G, **Flinkman J**, Kankaanpää H 2012: Speciation of <sup>129</sup>I in sea, lake and rain waters. *Science of the Total Environment* 419 (2012) 60–67.

33) Möllmann C, Lindegren M, Blenckner T, Bergström L, Casini M, Diekmann R, **Flinkman J**, Müller-Karulis B, Neuenfeldt S, Schmidt J Ö, Tomczak M, Voss R, and Gårdmark A, 2013: Implementing ecosystem-based fisheries management: from single-species to integrated ecosystem assessment and advice for Baltic Sea fish stocks. *ICES Journal of Marine Science*, doi:101093/icesjms/fst123.

34) Otto S A, Diekmann R, **Flinkman J**, Kornilovs G and Möllmann C, 2014: Habitat heterogeneity determines climate impact on zooplankton community structure and dynamics. *PLoS ONE*, 01/2014; 9(3):e90875. DOI:10.1371/journal.pone.0090875 Source: PubMed

35) Peltonen H, Ruokojärvi P, Korhonen M, Kiviranta H, **Flinkman J**, Verta M, 2014: PCDD/Fs, PCBs and PBDEs in zooplankton in the Baltic Sea - Spatial and temporal shifts in the congener-specific concentrations. *Chemosphere* 2014; 114: 172-180

### **Books:**

Raateoja M, Myrberg K, Flinkman J and Vaino J. 2010: Itämeri, kotimeri

Flinkman J. 2011: Onko Itämerellä toivoa? In: Ihminen ja ympäristö, Jari Niemelä (ed.)

Flinkman J, Puromies P, 2015: Vrouw Marian viimeinen matka. Paasilinna oy

### **Refereeing for international scientific journals:**

- Marine Ecology Progress Series, 5 manuscripts
- Boreal Environmental Research, 2 manuscripts
- SeaGrant symposium Herring 2000 Proceedings, 1 manuscript
- Journal of Fish Biology, 1 manuscript
- ICES Journal of Marine Science, 1 manuscript
- Annales Zoologici Fennici, 1 manuscript

Marine Ecology Progress Series, member of staff referee 2004-2010.

### **Marine historical publications and posters:**

Rätty, R, & **Flinkman, J**. 1997: S/S Hindenburg, hylky Saaristomerellä. Sotamuseon julkaisuja 2/97 (Finnish War Museum publications).

**Flinkman, J** & Rätty, R. 1997: Rusty Fin(n)s, or the use of extended range scuba diving techniques for wreck research and its possible applications as a cost-effective environmental hazard and artificial reef research tool. 4th. Underwater Science Symposium Proceedings, pp. 59-60

Visualising the murky Baltic – imaging as a tool in poor-visibility underwater research. Society of Underwater Technology Symposium, Southampton, UK 29. 3. – 1. 4. 2001. Symposium poster.

Monitoring, Safeguarding and Visualizing North-European Shipwreck Sites: Common European Cultural Heritage - Challenges for Cultural Resource Management – the Final Report 2005

Global Underwater Explorers Conference, Kiel, Germany 11. – 13. 11. 2011. Badewanne.fi "Secrets of the Baltic" and "Unknown 18<sup>th</sup> Century warship wreck" posters.

BalticTech 2015, Gdynia, Poland 21.-22. 11. 2015. "Submarine SM U 26 and armoured cruiser Pallada" presentation with Jouni Polkko/Badewanne

### **Popular publications:**

Flinkman, J. 1993: Sepelkyyhkyn metsästys. Metsästäjä 4/1993, s. 18-19 (on dove hunting).

Flinkman, J. Ansapyynti euroaikaan - ketun jalkanarupyynti. Metsästäjä 6/1993, s. 12-13 (on fox leg-snare trapping methods).

Flinkman J. 1995: Kelpi, metsä meressä. Sukeltajan maailma 1/95:24-25 (Kelp, a forest in the ocean).

Flinkman J. 1995: Itämeren eliöstöä sukeltajan silmin, osa I: rakkolevän elämistöä. Sukeltajan maailma 1/95:44-45 (Baltic macroscopic fauna for divers).

Flinkman J. 1995: Koralliriutat. Sukeltajan maailma 2/95:22-27 (Coral reefs).

Flinkman J. 1995: Itämeren eliöstöä sukeltajan silmin, osa II: Pohjois-Itämeren halkoisjalkaiset eli Mysis-äyriäiset. Sukeltajan maailma 2/95: 44-45 (Baltic mysids as a diver sees them).

Flinkman J. 1995: Vara-annostin vai ylimääräinen hengityslaite? Sukeltajan maailma 2/95: 62-63 (An octopus or an alternate air source?).

Flinkman J., Rätty R. 1995: Tekniikkasukellus - mitä se on ? Sukeltajan maailma 3/95: 8-11 (Technical diving - what it is all about?-part one)

Flinkman J. 1995: Hylkyjen eliöstöä - ökömölleroitä ja dekopohdintaa. Sukeltajan maailma 3/95: 20-23 (Marine life on wrecks).

Flinkman J., Rätty P. 1996: Rebreatherit, eli hengityskaasun kierrättämiseen perustuvat sukelluslaitteet. Sukeltajan maailma 1/96: 48-49 (Rebreathers).

Flinkman J., Rätty R. 1996: Tekniikkasukellus - miten sitä tehdään ? Osa 2: tekniikoista ja varusteista. Sukeltajan maailma 1/96: 56-59 (technical diving - what is needed to do it safely - part two).

Flinkman J. 1996: Red Sea experience - Keikka Punaisella merellä. Sukeltajan maailma 4/96:18-23 (How to have a succesful liveaboard dive trip).



### **Most important illustration and graphic work:**

FST: Skärgårdshavets vrak 1994 (B. Törnroos), (Illustrations in a TV-document on wrecks in Archipelago sea).

Vuorinen, I. 1994: Itämeren ympäristön tila. (Illustrations in a book "State of environment of the Baltic Sea")

Röhr, M. 1995: Wrecks. (Illustrations in tv documentary series)

Räty, R., Flinkman, J. 1997: s/s Hindenburg, hylky Saaristomerellä. (Illustrations in the book)

Finnish Post Stamp Center 1998: Stamps "Aranda", "Vega - Northeast Passage", together with First Day Cover and -stamp.

Reima Räty, Juha Flinkman ja Harry Lindholm: Grave at Sea. Fates of vessels 1940-1944. Special exhibition, Finnish War Museum 21.5.-31.11. 1999

Reima Räty, Juha Flinkman ja Harry Lindholm: Grave at Sea. Fates of vessels 1940-1944. Special exhibition, Hanko front museum 20.5. – 1. 9. 2000

Finnish Post Stamp Center 2000: Gulf of Finland-a journey through space and time. History, lighthouses, wrecks and underwater environment and research presented in 4 series of stamps. Published during 2001-2003.

### **Documentaries, tv-series:**

Skärgårdshavets vrak (Wrecks of the Archipelago Sea) FST/B. Törnroos 1994.

Matila Röhr Productions: Hylty (Wrecks), 1996. Documentary film and tv series.

Matila Röhr Productions: Underwater Iceland, 1997.

Reima Räty, Juha Flinkman ja Harry Lindholm: Hautana meri. Aluskohtaloita Suomen vesillä 1940-1944 (No other grave but the sea, ship fates in Finnish waters 1940-44). Exhibition, Finnish War Museum 21.5.-31.11. 1999

Matila Röhr Productions: Hylty (Wrecks), Vrouw Maria 2001.

Matila Röhr Productions: Deep Breath-documentary film 2005

Matila Röhr Productions: Tellus Flight documentary film 2006

Matila-Röhr-Nosdisk/MTV3: Itämeri, 10 osainen tv sarja 2012.

Itämeri (The Baltic Sea) 10 episode series, MTV3 Channel 2012

Sunken Nazi Subs - National Geographic Channel Sunday Special 2012

Matila Röhr Productions: Järven Tarina Nature Document feature film 2015