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Publications (refereed)

2009

- Payne, M.R., Dickey-Collas, M., Hatfield, E.M.C., Falkenhaug, T., Gallego, A., **Gröger**, J., Licandro, P., Llope, M., Munk, P., Röckmann, C., Schmidt, J., Nash, R.D.M. 2008. Environmental change confounds good fisheries management. ICES Journal of Marine Science 66 (doi:10.1093/icesjms/fsn211).
- Gröger**, J. P., Rohlf, N., Kruse, G. 2008. Slave to the rhythm: How climate cycles trigger herring regeneration in the North Sea. ICES Journal of Marine Science (accepted).
- Gröger**, J. P., Kruse, G. H., 2009. How climate triggers sable fish recruitment in the Gulf of Alaska (in prep.).
- Gröger**, J. P., Kruse, G. H., Mahlzahn, A., Islam, S., Rohlf, N. 2008. Climate cycles as drivers for herring (*Clupea harengus*) growth in the North Sea (in prep.).
- Gröger**, J.P., Winkler, H., Puls, S., Kinzelbach, R. (2009). A Scenario-based Management Options Plan for Cormorant Colonies in the German State of Mecklenburg-Vorpommern based on Cohort Analysis. (in prep.).
- Gröger**, J.P., Rountree, R.A. (2009). Analyses of Interventions and Structural Breaks in Marine Time Series – Detection of Shifts Using Iterative Methods. (in prep.).

2008

- Rountree, R.A., **Gröger**, J.P., and Martins, D. 2008. Large vertical movements by a goosefish, *Lophius americanus*, suggests the potential of data storage tags for behavioral studies of benthic fishes. Marine and Freshwater Behaviour and Physiology. Vol. 41, No. 1: 73-78.
- Kock, K.-H., Pshenichnov, L., Jones, C. D., **Gröger**, J. and Riehl, R. 2008. The biology of the spiny icefish Chaenodraco wilsoni Regan 1914. Polar Biol. 31: 381 - 393.

2007

- Gröger**, J. P., R. A. Rountree, U. H. Thygesen, D. Jones, D. Martins, Q. Xu and B. Rothschild (2007). Geolocation of Atlantic cod, *Gadus morhua*, movements in the Gulf of Maine using tidal information. Fisheries Oceanography, 16/4: pp 317–335. (doi:10.1111/j.1365-2419.2007.00433.x).
- Gröger**, J. P., Winkler, H., Rountree, R. A. (2007). Population dynamics of pikeperch (*Sander lucioperca*) and its linkage to fishery driven and climatic influences in a southern Baltic lagoon of the Darss-Zingst Bodden Chain. Journal of Fisheries Research, 84 (2007): pp 189–201. (doi: 10.1016/j.fishres.2006.10.018).
- Rätz, H.-J., Bethke, E., Dörner, H., Beare, D., and **Gröger**, J. 2007. Sustainable management of mixed demersal fisheries in the North Sea by means of fleet based management – a proposal from a biological perspective. ICES Journal of Marine Science. ICES Journal of Marine Science, 64: pp 652-660. (doi:

- 10.1093/icesjms/fsm030).
- Gröger**, J.P., Rountree, R.A., Missong., M., and Rätz, H.-J. (2007). A stock rebuilding algorithm featuring risk assessment and an optimization of single or multispecies fisheries. ICES Journal of Marine Science, 64(6): pp 1101-1115. (doi:10.1093/icesjms/fsm085).
- 2006 **Gröger**, J., Rumohr, H. (2006). Modelling and forecasting long-term dynamics of Western Baltic macrobenthic fauna in relation to climate signals and environmental change. Journal Sea Research 55: pp 266-277.
- 2005 Siegel, V., **Gröger**, J., Neudecker, T., Damm, U., Jansen, S. (2005). Long-term variation in the abundance of the brown shrimp *Crangon crangon* (L.) population of the German Bight and possible causes for its interannual variability. Fish. Oceanogr. 14:1, pp 1-16.
- 2004 Enin, U. I., **Gröger**, J., Hammer, C. (2004). Species and length composition of fish in the southwestern Baltic Sea. Journ. Appl. Ichth. Vol 20/2004, pp 369-375.
Enin, U. I.; **Gröger**, J. (2004). An assessment of the biomass production theory in the Baltic Sea using fish landings data. Journ. Appl. Ichth. Vol. 20/2004, pp 362-368.
- 2003 Gollasch, S.; **Gröger**, J. (2003). Im Schiff unerkannt über die Weltmeere - Artverschleppungen, Gefahrenpotenzial und Gegenmaßnahmen im marinen Bereich. In: Forschungsreport. German Federal Ministry of Consumer Protection, Food and Agriculture, Vol. 2 / 2003, pp 32-35.
Gröger, J. (2003). Theoretical and practical sample size considerations with respect to statistical quality control of otolith readings. Arch. Fish. Mar. Res. 50(2) 2003, pp 161-173.
Winkler, H. M.; **Gröger**, J. (2003): Pikeperch stocks (*Sander lucioperca*) and fisheries in German southern Baltic lagoons. In: Proceedings of PERCIS III - The third international percid fish symposium. Madison. Wisconsin, USA July 2003: pp 112-113.
- 2002 Schrader, G.; Unger, J.-G.; **Gröger**, J.; Goretzki, J. (2002). Invasive gebietsfremde Arten: Eine Gefahr für die biologische Vielfalt. In: Forschungsreport. German Federal Ministry of Consumer Protection, Food and Agriculture, Vol. 2 / 2002: pp12-16.
- 2001 **Gröger**, J.; (2001). Biometrische Analysen zur Optimierung spezieller populations-dynamischer Kenngrößen in der Fischereibiologie. Schriften der Bundesforschungsanstalt für Fischerei, Nr. 26 (Habilitationsschrift an der Math.-Natur. Fakultät der Universität Rostock). ISSN 0438-4547. 150 pp.
Gröger, J. (2001). Description of growth by simple versus complex models for Baltic Sea spring spawning herring. Journ. Appl. Ichthyol., 17(1): 13pp.
Gröger, J.; Gröhslor, T. (2001). Comparative analysis of alternative statistical models for herring stock differentiation based on meristic characters. Journ. Appl. Ichthyol. 17 (5), pp 207-219.
Gröger, J.; Schnack, D.; Rohlf, N. (2001). Optimisation of survey design and calculation procedure for the International Herring Larvae Survey in the North Sea. Arch. Fish. Mar. Res., 49 (2) 2001, pp 102-116.

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| 2000 | Gröger, J. ; Piatkowski, U., Heinemann, H. (2000). Beak length analysis of the Southern Ocean squid <i>Psychroteuthis glacialis</i> (Cephalopoda: Psychroteuthidae) and its use for size and biomass estimation. <i>Polar Biology</i> , 23: pp 70-74. |
| | Gröger, J. (2000). Separation of two herring stocks in the transition zone between the Baltic and North Seas, based on logistic regression and meristic characters. <i>Arch. Fish. Mar. Res.</i> 48(2): pp 161–174. |
| | Gröger, J. ; Debus, L. (2000). Morphometric comparison of <i>Acipenser sturio</i> populations by means of a mixed estimation procedure. <i>Arch. Fish. Mar. Res.</i> 48(2): pp 175–193. |
| 1999 | Gröger, J. (1999). A theoretical note on the interpersonal correction of age readings by means of calibration techniques. <i>Arch. Fish. Mar. Res.</i> 47(1): pp 77-101. |
| 1998 | Siegel, V., Loeb, V., Gröger, J. (1998). Krill (<i>Euphausia superba</i>) density, proportional and absolute recruitment and biomass in the Elephant Island region (Antarctic Peninsula) during the period 1977 and 1997. <i>Polar Biology</i> , 19: pp 393-398. |
| 1994 | Kock, K.-H., Wilhelms, S., Everson, I., Gröger, J. (1994). Variation in the diet composition and feeding intensity of mackerel icefish (<i>Champscephalus gunnari</i>) at South Georgia (Antarctic). <i>Mar. Ecol. Progr. Ser.</i> , 108: pp 43-57. |
| | Reusch, T.B.H., Chapman, A.R.O., Gröger, J.P. (1994). Blue mussels <i>Mytilus edulis</i> do not interfere with eelgrass <i>Zostera marina</i> but fertilize shoot growth through biodeposition. <i>Mar. Ecol. Progr. Ser.</i> , 108: pp 265-282. |
| 1993 | Gröger, J. (1993): Ein Wahrscheinlichkeitstheoretischer Ansatz zur Optimierung der Survey- und Auswertungsstrategie des International Young Fish Survey in der Nordsee (Doctoral thesis). Berichte aus dem Institut für Meereskunde, Nr. 230. 166 pp |
| 1986 | Gröger, J. (1986): Möglichkeiten zur Darstellung wachstumsgekoppelter Größen in der Aquakultur anhand der Modelltheorie (Diploma thesis). 150 pp. |

Conference papers (non-refereed)

- Ehrich, S., **Gröger, J.** (1989): Diurnal Variation in Catchability of Several Fish Species in the North Sea. ICES C.M. 1989/B:35. 10 pp.
- Gröger, J.** (1991): A Modular Probability Model for Numerical Simulation of Fishery Surveys. ICES C.M. 1991/D:38. 16 pp.
- Gröger, J.**, Ehrich, S. (1992): The Importance of Frequency Distributions for the Interpretation of Catch Data and the Fit by the Very Adaptable and Realistic Beta Distribution. ICES C.M. 1992/D:18. 22 pp.
- Gröger, J.**, Gröhsl, T. (1995). On the Discrimination of Herring Stocks in Division IIIa. ICES C.M. 1995/J:22.

Gröger, J. (1996). A Simple Statistical Age Reading Calibration Model. ICES C.M. 1996/D:4.

Gröger, J., Gröhslar, T. (1996). Information-updated Discrimination of Herring Stocks in Baltic Division IIIa. ICES C.M. 1996/J:10.

Ehrich, S., **Gröger, J.** (1996). Structure and catches of the German fishing fleet. In: Informationen für die Fischwirtschaft aus der Fischereiforschung, vol. 43, no. 4, pp 155-158.

Gröger, J. (1998). An intrinsic linear cumulative growth rate model. ICES C.M. 1998/BB:7. 20 pp.

Rohlf, N.; **Gröger, J.**; Schnack, D. (1998). Effects of calculation procedure and reduced sampling effort on abundance indices of herring larvae as measure of spawning stock size. ICES C.M. 1998/BB:04. 40 pp.

Rohlf, N.; **Gröger, J.**; (1999). Report of the Herring Larvae Surveys in the North Sea in 1998/99. ICES C.M. 1999/ACFM:12. 11 pp.

Gröger, J.; Schnack, D. (1999). Historie und aktueller Stand des Internationalen Heringslarvensurvey (IHLS) in der Nordsee. Informationen für die Fischwirtschaft aus der Fischereiforschung, 46 (4), pp 29-33.

Gröger, J.; (2000). Zur Genauigkeit von Alterslesungen, ihrer Standardisierung und Kalibrierung (Informationen für die Fischwirtschaft aus der Fischereiforschung, 47 (1): pp 84-90.

Enin, U. I.; **Gröger, J.** (2002). Fish community size structure in the Mecklenburg Bight and Arkona Basin in the Baltic Sea, in the decade 1991 to 2000. ICES CM/L:24. 17 pp.

Gröger, J. (2002). Zur Problematik gebietsfremder Arten in partiell isolierten Ökosystemen. Informationen für die Fischwirtschaft aus der Fischereiforschung 49(1): pp 3-8.

Rohlf, N.; **Gröger, J.**; (2003). Report of the Herring Larvae Surveys in the North Sea in 2002/2003. ICES C.M. 2003/ACFM:12. 11 pp.

Rohlf, N.; **Gröger, J.**; (2004). Report of the Herring Larvae Surveys in the North Sea in 2003/2004. ICES C.M. 2004/ACFM:12. 11 pp.

Catrina Clemmesen, Vivian Buehler, Gary Carvalho, Richard Case, **Joachim Gröger**, Lorenz Hauser, William Hutchinson, Olav Kjesbu, Erlend Moksness, Haakon Otteraa, Helge Paulsen, Anders Thorsen, Benedikte Willert & Terje Svaasand (2004). Are differences in short-term and long-term growth and nutritional condition estimates of larval and juvenile cod related to maternal effects? (ICES symposium Gadoid Mariculture - Development and Future Challenges, Bergen, Norwegen 06/13/2004 - 06/16/2004).

Joachim P. Gröger, Tu Truong, Brian J. Rothschild, and F. Azadevar (2004). A New Approach Towards an Optimal Control of Fisheries on Georges Bank: the SMAST Groundfish Optimization Simulation Model (Vigo, Spain, Sep 22-25). ICES CM 2004/FF 18.

Gröger, J.; Rountree, R.; Thygesen, U.H.; Jones, D.; Martins, D.; Xu, Q.; Rothschild, B. (2005). Geolocation of Massachusetts Bay Cod (*Gadus morhua*) Using Tidal Information. Theme Session on How to Improve Environmental Monitoring and Biological Studies - Integrating Ecology and Statistics. ICES CM 2005/Z:10. pp 31.

Rountree, R.A., **Gröger, J.P.** and Martins, D. (2006). Extraction of daily activity pattern and vertical migration behavior from the benthic fish, *Lophius americanus*,

based on depth analysis from data storage tags. ICES CM 2006/Q:01. pp 23.

Gröger, J., Rohlf, N. (2007). On the detection of internal and external signals in the stock-recruitment relationship of North Sea herring. *Inf. Fischereiforsch.* 54, 2007, pp 13-21. e-ISSN 1861-2164, p-ISSN 1860-9902.

Gröger, J., Ehrich, S. (2007). Kommentar zum Worm-et-al.-Artikel "Impacts of Biodiversity Loss on Ocean Ecosystem Services", erschienen im Wissenschaftsmagazin *Science*, Vol. 314, am 3. November 2006, *Inf. Fischereiforsch.* 54, 2007, pp 1-8. e-ISSN 1861-2164, p-ISSN 1860-9902.

Gröger, J., Rohlf, N. (2007). Shedding light on recruitment mysteries: internal and external signals in the stock-recruitment relationship of North Sea herring. ICES CM 2007 / H:01.

Written bookchapters

Gröger, J. (2002). Grundzüge der Populationsdynamik genutzter Fischbestände. In: Meer und Museum, Schriftenreihe des Deutschen Meeresmuseums, Stralsund. 50 pp.

Activity as book series editor

Moll, E.; **Gröger, J.**; Liesebach, M.; Rudolph, P.E.; Stauber, T.; Ziller, M. (Eds) (2004): Einführung in die Biometrie Band 1. Richter, C.: Grundbegriffe und Datenanalyse. Saphir-Verlag, ISBN ISBN 3-930037-15-7, 2. Auflg., 160 S.

Moll, E.; **Gröger, J.**; Liesebach, M.; Rudolph, P.E.; Stauber, T.; Ziller, M. (Eds) (2004): Einführung in die Biometrie Band 2. Sumpf, D.; Moll, E.: Schätzen eines Parameters und Vergleich von bis zu zwei Parametern. Saphir-Verlag, ISBN ISBN 3-930037-16-5, 2. Auflg. 134 S.

Moll, E.; **Gröger, J.**; Liesebach, M.; Rudolph, P.E.; Stauber, T.; Ziller, M. (Eds) (2004): Einführung in die Biometrie Band 3. Schumacher, E.: Vergleich von mehr als zwei Parametern. Saphir-Verlag, ISBN ISBN 3-930037-17-3. 184 S.

Moll, E.; **Gröger, J.**; Liesebach, M.; Rudolph, P.E.; Stauber, T.; Ziller, M. (Eds) (2004): Einführung in die Biometrie Band 4. Rasch, D.: Regression und Korrelation. Saphir-Verlag, ISBN 3-930037-18-1, 2. Auflg., 151 S.