

# Konrad Dabrowski

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## EDUCATION & TRAINING

M.Sc., 1972 Major: Inland Fisheries; Agriculture University, Olsztyn, Poland  
Ph.D., 1976 Major: Fisheries; Agriculture University, Olsztyn, Poland  
D.Sc., 1984 Major: Fish Physiology; Agricultural University, Szczecin, Poland

## RESEARCH & PROFESSIONAL EXPERIENCE

1989-Present Professor - School of Natural Resources, Ohio State University, Columbus, Ohio, U.S.A.  
Courtesy appointments: Department of Animal Science, Department of Evolution, Ecology and Organismal Biology  
1987-1989 Visiting Professor - Institute of Zoology, University of Innsbruck, Innsbruck, Austria  
1985 Visiting Professor - Department of Biology, University of Paris VII, Orsay, France  
1984-1985 Visiting Professor - Department of Aquaculture, Japanese Society for Promotion of Science, Tokyo, University of Fisheries, Tokyo, Japan  
1976-1977 Post-Doctoral Fellowship - The University of Ulster, Coleraine, Northern Ireland, U.K.  
1984-1987 Associate Professor - Inland Fisheries and Water Protection, Agriculture University, Olsztyn, Poland  
1972-1984 Assisant Professor - Inland Fisheries and Water Protection, Agriculture University, Olsztyn, Poland

## SYNERGISTIC ACTIVITIES

### Patents:

- Dabrowski, K. and K.J. Lee 2002. Dietary formulations including peptides. Patent Application. August 31, 2002. Washington.
- Babiak, I. and K. Dabrowski. 2003. Chimeric fish and methods of producing them. Patent Application, February 18, 2003. Washington.

### Scientific and Professional Organizations:

- American Fisheries Society
- World Aquaculture Society
- European Aquaculture Society
- Scientific Committee of North-Central Regional Aquaculture Center, USDA

### Editorial Boards:

- Associate Editor, *Frontiers in Physiology*, Aquatic Physiology section, 2022- present
- Member: *Animal*, 2020-present
- Associate Editor, *Fish Physiology and Biochemistry*, 2007- 2010
- Member: *Scientific Reports*, 2018-present
- Member of the Editorial Board, *Aquaculture Nutrition*, 2005- 2010
- Member of the Editorial Board, *Aquaculture Research*, 2005-2010
- Member of the Editorial Board, *Aquatic Living Resources*, 1987-present
- Member of the Editorial Board, *Aquaculture*, 1991-2008, 2015-present
- Associate Editor, *Progressive Fish Culturist*, *North American Journal of Aquaculture*, 1997-2002
- Member of Editorial Board, *Polish Archive of Fisheries*, 2001-present
- Member of Editorial Board, *Korean Journal of Aquaculture*, 2002-present

## **WORLD'S RANKING**

I have authored over 390 peer-reviewed papers and was recently ranked by Stanford University studies (PLOS Biology <https://doi.org/10.1371/journal.pbio.3000918>) as number 33 (10 in the USA) out of 37,382 scientists regarding my contribution to the "Fisheries" discipline.

See also <https://research.com/u/konrad-dabrowski>

## **PAST MENTEES**

### **Fulbright Scholars**

- Atse, Celestin, Ivory Coast Fisheries Institute, Abidjan, Ivory Coast, Professor
- Babiak, Igor, Blastomere transplantation in fish-production of chimeras. At present, Professor, Bode University, Norway

### **Visiting International Scholars**

- Kestemont, P., University of Namur, Namur, Belgium, At present Professor and Chair (1993-1994)
- Ciereszko, A. Institute of Animal Reproduction, Polish Academy of Sciences, Olsztyn, Poland, Professor (1994-1998)
- Lam, T.J., National University of Singapore, Professor (1999-2000)
- Bendik F. Terjesen, AKVAFORSK, Institute of Aquaculture Research, Sunndalsøra, Norway (2006)
- Shabana, N., National Institute of Oceanography and Fisheries-Aquaculture Devison, Alexandria, Egypt (2013-2014)
- Chojnacki, M., Warsaw University of Life Sciences (2015-2016)
- El Naggat, K., Alexandria University, Egypt, Lecturer (2016-2017)
- El-Sayed M. Hussein, E., University of Minufyia, Shebin El-Kom, Egypt, Professor (2018-2019)
- Arreglado-Mandas, A., Borlaug Fellow, Aquaculture Department, College of Fisheries, Mindanao State University, Santos City, Philippines, Professor (2015-2016)
- Elkassas, S., Faculty of Veterinary Medicine, Kafrelshikh University, Egypt (2019-2020)
- Fatan, N., Borlaug Fellow, World Fish, Sustainable Aquaculture Program, Research Analyst, Malaysia (2019-2020)

### **Postdoctoral Fellows**

- Satora L.
- Guz, L.
- Babiak, I.
- Rinchar, J.
- Miller, M.
- Arslan, M.
- Terjesen, B.
- Jaroszewska, M.
- Haliloglu, I. H.

### **Graduate Students**

- S. Hassard, M.Sc., University of Ulster, U.K., 1977-78
- B. Kozak, M.Sc., Agriculture University, Olsztyn, Poland, 1978-79
- A. Szoveny, M.Sc., Agriculture University, Olsztyn, Poland, 1978-79
- P. Poczyczynski, M.Sc., Agriculture University, Olsztyn, Poland, 1980-81
- C. Doblender, M.Sc., University of Innsbruck, Innsbruck, Austria, 1988-89
- G. Krumschnabel, M.Sc., University of Innsbruck, Innsbruck, Austria, 1988-89
- T. Morrison, M.Sc., Natural Resources, Ohio State University, USA
- M. Matusiewicz, Ph.D., Zoology, Ohio State University, 1990-1994
- Deyab El-Saidy, Ph.D., University of Manoufia, Egypt; 1991- 1995.
- J. Blom, Ph.D., Environmental Science Program, Ohio State University, 1991-1995
- Liu Li, Ms.S., Zoology, Ohio State University, 1994-1996.
- L. Feng, Ph.D., Natural Resources, Ohio State University, USA, 1994- 1998.
- Yackey, C., M.Sc., Natural Resources, Ohio State University, 1996-1998.

- Mbahinziraki, G., Ph.D. Zoology, Ohio State University, 1994-1998.
- Moreau, R., Ph.D., Natural Resources, Ohio State University, 1995-1999.
- Czesny, S., Ph.D., Environmental Science, Ohio State University, 1996-2000.
- Hartman, T., M.Sc., Natural Resources, Ohio State University, 1997- 2001.
- Lee, K-J., Ph.D., Animal Science, Ohio State University, 1998- 2002.
- Penn, M., Ph.D., Natural Resources, Ohio State University, 2001- 2005.
- Wolfe, T., M.Sc., Natural Resources, Ohio State University, 2001- 2005.
- Froschauer, J., M.Sc., Natural Resources, Ohio State University, 2002-2004.
- Rodriguez, G., Ph.D., Natural Resources, Ohio State University, 2002-2006
- Palacios, M.E., M.Sc., Biology, University of San Marcos, Lima, Peru; 2005- 2007
- Zhang, Y., Ph.D., Ohio State University, Columbus, Ohio, 2004- 2008
- Bowzer, J., M.Sc., Environmental Science Graduate Program, 2009-2011
- Kwasek, K. Ph.D., Animal Sciences, Ohio State University, 2006-2012
- Ebtehal Hussein, PhD, Animal Sciences, Ohio State University, 2008- 2012
- Lee, B.J. Ph.D., School of Environment and Natural Resources, Ohio State University 2008-2013
- Parker T., M.Sc., School of Environment and Natural Resources, Ohio State University 2010-2013
- Wojno, M. Ph.D., Environmental Science Graduate Program, Ohio State University 2008-2014
- Towne, K. M.Sc. School of Environment and Natural Resources, Ohio State University 2014-2016
- Alam, M. PhD. School of Environment and Natural Resources, Ohio State University 2014-2018
- Kemski, M. PhD. Food Science and Technology, Ohio State University 2013-2018
- Delomas, T. PhD. School of Environment and Natural Resources, Ohio State University 2015-2018
- Fisher, K. M.Sc. School of Environment and Natural Resources, Ohio State University 2016-2020
- Miller, M.E. PhD. School of Environment and Natural Resources, Ohio State University 2016-2020
- Grayson, J.D. PhD. School of Environment and Natural Resources, Ohio State University 2016-2020
- Naznin, A. M.Sc. School of Environment and Natural Resources, Ohio State University 2021-2023

## RECENT PRESENTATIONS

1. Keynote lecture at 2023 International Conference on the Cooperation and Integration of Industry, Education, Research and Application Subforum on Genetic Breeding and Healthy Farming, Changsha, China, November 24-27, 2023.
2. “Unpredictable can become predictable in cyprinid hybridization and tetraploidy: Case of Koi carp (female) x hybrid (male with diploid sperm).” Konrad Dabrowski and Kevin Fisher. 2023 International Conference on the Cooperation and Integration of Industry, Education, Research and Application Subforum on Genetic Breeding and Healthy Farming, Changsha, China, November 24-27, 2023.
3. “Investigating the potential of hybrids between koi carp *Cyprinus carpio* and bighead carp *Hypophthalmichthys nobilis*, continued: notes on viability, growth, fecundity, and melanoma.” Kevin Fisher and Konrad Dabrowski. 2023 International Conference on the Cooperation and Integration of Industry, Education, Research and Application Subforum on Genetic Breeding and Healthy Farming, Changsha, China, November 24-27, 2023.
4. “Purposes of tetraploidy and distant hybridization in fish: Koi carp (female) x Goldfish (Male) example.” Konrad Dabrowski, Kevin Fisher, and Mackenzie Miller. Aquaculture America 2023, Physiology Section, New Orleans, LA, February 23-26, 2023.
5. “Investigating the potential of hybrids between koi carp *Cyprinus carpio* and bighead carp *Hypophthalmichthys nobilis*.” Kevin Fisher and Konrad Dabrowski. Aquaculture America 2023, Finfish Production section, New Orleans, LA, February 23-26, 2023.
6. “Evaluation of fertility of triploid zebrafish *Danio rerio*. Afroza Naznin, Mackenzie Miller, Kevin Fisher, and Konrad Dabrowski, Larval Culture Section, New Orleans, LA, February 23-26, 2023.

7. “Developing Technology to induce tetraploidy in saugeye *Sander vitreus* x *Sander canadensis* as a means to establish saugeye aquaculture in the U.S. Mackenzie Miller and Konrad Dabrowski, Percid Section, New Orleans, LA, February 23-26, 2023.
8. “Polyploidy and hybridization as tools to promote success of aquaculture fish production and recreational fishery stocking programs in synchrony” Konrad Dabrowski, Mackenzie Miller, and Kevin Fisher. Wisconsin Aquaculture Association, Eau Claire, Wisconsin, February 17-18, 2023.

## PUBLICATIONS

### Books and book chapters

17. Kestemont, P., Dabrowski, Summerfelt, R. 2015. *Biology and Culture of Percid Fishes. Principles and Practices*. Springer, Dordrecht, 901 pp.
16. Zaccane, G., Dabrowski, K., Hedrick, M.S., Fernandes, J.M.O., Icardo, J.M. 2015. *Phylogeny, Anatomy and Physiology of Ancient Fishes*. CRC Press, Boca Raton, FL, U.S.A., 297 pp.
15. Jaroszewska M. and Dabrowski, K., 2011. Utilization of yolk: transition from endogenous to exogenous nutrition in fish. In: *Larval Fish Nutrition*, First Edition, G. Joan Holt (Ed.), *John Wiley & Sons, Inc.* pp. 183-218.
14. Dabrowski, K., and Hardy, R. 2010. Basic and Applied Aspects of Aquaculture Nutrition”, (Eds.), *Aquaculture Research* 41, Number 5, *Wiley-Blackwell*.
13. Ostaszewska, T. and Dabrowski, K., 2009: Early Development of Acipenseriformes (Chondrostei, Actinopterygii). In: *Development of Non-Teleost Fish*, Y.W. Kunz, C.A. Luer, B.G. Kapoor [Eds.], *Science Publishers Inc.* pp. 171-230.
12. Jaroszewska M. and Dabrowski, K., 2009: Early ontogeny of Semionotiformes and Amiiiformes (Neopterygii: Actinopterygii). In: *Development of Non-Teleost Fish*, Y.W. Kunz, C.A. Luer, B.G. Kapoor [Eds.], *Science Publishers Inc.* pp. 231-275.
11. Kamler, E., and K. Dabrowski, [Eds.] 2008: Resource Management. Natural, human and material resources for the sustainable development of aquaculture. Short communications of contribution presented at the International Conference Aquaculture Europe, Krakow, Poland, September 15-18, 2008, pp. 732.
10. Portella, M.C., Dabrowski, K., 2008: Diets, Physiology, Biochemistry and digestive tract development of freshwater fish larvae. In: Cyrino, J.E.P., Bureau, D.P. and Kapoor, B.G. [Eds.], *Feeding and Digestive Functions of Fishes*, Science Publishers, Inc., pp.227-275.
9. Dabrowski, K., Portella, M.C., 2005. Feeding plasticity and nutritional physiology in tropical fish. In: Val A.L. and Randal D.J. [Eds], *Fish Physiology*, volume 21, pp.155-224.
8. Dabrowski, K., S. Czesny and M. Matusiewicz. 2002. Coregonids. In: *Nutrient Requirements and Feeding of Finfish for Aquaculture*. [Eds. C.D. Webster and C. Lim], pp. 230-244.
7. Dabrowski, K. and H. Guderley. 2002. Intermediary metabolism. In: J.E. Halver and R. Hardy, [Eds.], Elsevier Science, USA, pp. 309-365.
6. Dabrowski, K. 2001. Preface. [Ed.] *Ascorbic Acid in Aquatic Organisms: Status and Perspectives*. CRC Press, Boca Raton, FL, pp. 288.

5. Dabrowski, K. 2001. Past, present, and future of ascorbic acid research in aquatic organisms. In: *Ascorbic Acid in Aquatic Organisms*, Boca Raton, CRC Press, 255-277.
4. Kestemont, P. and K. Dabrowski (Eds.). 1996. Recent Advances in the Aquaculture of Percid Fish. *J. Appl. Ichthyol.* Vol. 12, pp.199.
3. Kestemont, P. and K. Dabrowski. 1995. Workshop on Aquaculture of Percids, Press. Universit. De Namur, Belgium, pp.59.
2. Dabrowski, K. and A. Champigneulle. 1986. *Biology, exploitation, rearing and propagation of coregonid fishes*. Volume 22, Archiv Hydrobiol. Beih. Ergebn, Limnol. Stuttgart. pp.386.
1. Cowey, C. B., Cho, Y. C., Dabrowski, K., Hughes, S., Lall, S. P., Lovell, R. T., Murai, T. and Wilson, R. P. 1993. Nutrient Requirements of Fishes. National Research Council, Board of Agriculture, National Academy Press, Washington, D. C.

### Refereed publications

393. Dabrowski, K., Panicz, R., Fisher, K., Gomelsky, B., and Eljasik, P. 2024. Inherited anoxia tolerance and growth performance can result in enhanced invasiveness in hybrid fish. *Biology Open* (submitted).
392. Fisher, K.J., Miller, M.E., Delomas, T.A., Oldfield, R.G., and Dabrowski, K. 2024. Response to salinity challenge in hybrid blood parrot cichlids (*Vieja melanurus* × *Amphilophus citrinellus*). *Rev. Fish Biol. Fisheries* (submitted).
391. Hussein, Ebthel, E.S., Dabrowski, K., Wojno, M. 2023. Evaluation of the use of free amino acids in diets for red tilapia juveniles. *J. Aquaculture and Marine Biology* 12: 202-207.
390. Almeida, Z., Grayson, J.D., Ludsins, S.A., Dabrowski, K., Marschall, E. 2023. Experiential legacies of early-life dietary polyunsaturated fatty acids content on juvenile walleye: Potential impacts from climate change. *Ecology of Freshwater Fish* 32: 23-36.
389. Grayson, J., Dabrowski, K. 2022. The Utilization of live food enrichment with polyunsaturated fatty acids for the intensive culture of Yellow Perch larvae. *North Am. Journal Aquaculture* 84: 131-148.
388. Alam, M.A., Miller, M.E., Dabrowski, K. 2022. Hypoxic threshold for yellow perch embryonic development. *North Am. J. Aquaculture* 83: 372-380.
387. Wojno, M., Mandas, A., Kwasek, K., Dabrowski, K. 2021. The effect of dietary supplements of black pepper *Piper nigrum* and turmeric *Curcuma longa* extracts on dietary amino acid utilization and growth performance in common carp. *North Am. J. Aquaculture* 83: 155-164
386. Larson, D., Scribner, K., Dabrowski, K., Lee, K.J., Crossman, J. 2021. Egg lipid and thiamine vary between late and early spawning run of lake sturgeon. *J. Appl. Ichthyol.* 37:655-663.
385. Fisher, K., Miller, M.E., Dabrowski, K. 2021. Comparison and optimization of a novel larval rearing method for bighead carp *Hypophthalmichthys nobilis*. *Aquaculture* 534 (736266).
384. Adamek-Urbanska, D., Kasprzak, R., Tyszkiewicz, M., Fisher, K., Dabrowski, K. 2021. Negative effects of artificial diets on growth and the digestive tract of 1 month-old Redhead cichlid (*Vieja melanura*, Gunther 1862). *Aquaculture Res.* 52: 4889-4896.
383. Wang, Y., Yao, J., Luo, Y., Tan, F., Huang, X., Wang, S., Qin, Q., Zhang, C., Tao, M., Dabrowski, K., Liu, S. 2021. Two new types of homodiploid fish and polyploid hybrids derived from the distant hybridization of female common carp and male bighead carp. *Marine Biotechnol.* 23: 628-640.

382. Rahimenajad, S., Dabrowski, K., Izquierdo, M., Hematyar, N., Imentao, A., Steibach, Ch., Policar, T. 2021 Effects of vitamin C and E supplementation on growth, fatty acid composition, innate immunity, and antioxidant capacity of Rainbow trout (*Oncorhynchus mykiss*) fed oxidized fish oil. *Frontiers in Marine Science* 8 (760587)
381. Rahimenajad, S., Dabrowski, K., Izquierdo, M., Malinovskyi, O., Kolarva, J., Policar, T. 2021. Effects of dietary protein and lipid levels on growth, body composition, blood biochemistry, antioxidant capacity and ammonia excretion of European grayling (*Thymalus thymalus*). *Frontiers in Marine Science* 8 (715636)
380. Grayson, J., Dabrowski, K. 2020. Partial and total replacement of fish oil with fatty acid ethyl esters in the starter diets of rainbow trout (*Oncorhynchus mykiss*). *Aquaculture* 522, 735018.
379. Kemski, M., Rappleye, C., Dabrowski, K., Bruno, R., Wick, M. 2020. Transcriptomic response to soybean meal-based diets as the first formulated feed in juvenile yellow perch (*Perca flavescens*). *Scientific Reports* 10: 3998.
378. Marcek, B.J., Burbacher, E.A., Winslow, K.P., Dabrowski, K., Ludsin, S.A. 2019. Interactive effects of hypoxia and temperature on consumption, growth, and condition of juvenile hybrid Striped Bass. *Transactions of the American Fisheries Society* 149:71-83.
377. Ostaszewska, T. ; Krajnik, K.; Adamek-Urbanska, D. 2018. Effect of feeding strategy on digestive tract morphology and physiology of lake whitefish (*Coregonus lavaretus*). *Aquaculture* 37: 497: 32-41.
376. Mayta-Apaza, A. C., I. Garcia-Cano, K. Dabrowski and R. Jimenez-Flores 2021. Bacterial diversity analysis and evaluation of proteins hydrolysis during the acid whey and fish waste fermentation. *Microorganisms* 9(1).
375. Dabrowski, K., Miller, M. 2018. Contested paradigm in raising zebrafish (*Danio rerio*). *Zebrafish* 15: 295-309.
374. Delomas, T.A., Dabrowski, K. 2018. Effects of homozygosity on sex determination in zebrafish *Danio rerio*. *J. Fish Biol.* 1178-1187.
373. Delomas, T. Dabrowski, K. 2018. Improved protocol for rapid zebrafish growth without reducing reproductive performance. *Aquaculture Res.* 50: 457-463.
372. Delomas, T. Dabrowski, K. 2018. Why are triploid zebrafish all males? *Molecular Reprod. Develop.* 85: 612-621.
371. Dabrowski, K., M. Wojno, M. Miller, K. Kwasek, J.D. Grayson. 2018. Continued embryonic development, survival, and growth of walleye larvae following exposure to dewatering and storage in melting ice temperatures. *N. Amer. J. of Aquaculture* 80: 404-410.
370. Delomas, T. Dabrowski, K. 2018. Larval rearing of zebrafish at suboptimal temperatures. *J. Thermal Biol.* 74: 170-173.
369. Kemski, M., Wick., M., Dabrowski, K. 2018. Nutritional programming effects on growth and reproduction of broodstock and embryonic development of progeny in yellow perch (*Perca flavescens*) fed soybean meal based diets. *Aquaculture* 497: 452-461.
368. Miller, M., Kemski, M., Grayson, J.D., Towne, K., Dabrowski, K. 2018. Yellow perch sperm motility, cryopreservation, and viability of resulting larvae and juveniles. *North American Journal of Aquaculture* 80: 3-12.
367. Kwasek, K., Rimoldi, S., Cattaneo, A.G., Parker, T., Dabrowski, K., Terova, G. 2017. The expression of hypoxia-inducible factor-1 alfa gene is not affected by low-oxygen conditions in yellow perch (*Perca flavescens*) juveniles. *Fish Physiol.Biochem.* 43: 849-862.

366. Chen, K.Y., Ludsin, S.A., Corey, M., Dabrowski, K., van Tassel, J.J., and Marschall, E.A. 2017. Experimental and field evaluation of otolith strontium as a marker to discriminate between river-spawning populations of walleye in Lake Erie. *Can.J. Fish.Aquat.Sci.* 74: 693-701.
365. Ghiasi, S., Falahatkar, B., Arslan, M., Dabrowski, K. 2017. Physiological changes and reproductive performance of Sterlet sturgeon *Acipenser ruthenus* injected with thiamine. *Animal Reprod.Sci.* 178: 27-34.
364. Delomas, T. and Dabrowski, K. 2016. Zebrafish embryonic development is induced by carp sperm. *Biology Lett.* 12: 20160628
363. Rimoldi, S., Terova, G., Zaccone, G., Parker, T., Kuciel, M., Dabrowski, K. 2016. The effect of hypoxia on growth and expression of hypoxia-related genes and proteins in spotted gar *Lepisosteus oculatus* larvae and juveniles. *J. exp. Zool.* 326: 250-267.
362. Farmer, T., Dabrowski, K., Marschall, E., Ludsin, S. 2015. Short, warm winters threaten temperate fish populations. *Nature Communications* 6: 7724 (available online).
361. Montes de Oca, Gustavo A. Rodriguez; Dabrowski, Konrad 2015. Growth and body composition of Midas (*Amphilophus citrinellus*) and Nile tilapia (*Oreochromis niloticus*) reared in duoculture. *Revista Colombiana de Ciencias Pecuarias* 28: 255-264.
360. Kwasek, K., Dabrowski, K., Nynca, J., Wojno, M., Wick, M 2014a. The influence of dietary lysine on yellow perch maturation and quality of sperm. *North Am. Journal of Aquaculture* 76: 119-126.
359. Lopez-Lopez, Vanesa V.; de O, Gustavo A. Rodriguez M.; Cristobal, Medina-Hernandez, Eva ; Dabrowski, K. , Haws, Maria C. 2015. Comparative histological description of the digestive and visual system development of larval chame *Dormitator latifrons* (Pisces: Eleotridae). *Latin American Journal of Aquatic Research* 43: 484-494.
358. Kwasek, K., Dabrowski, K., Takata, R., Wojno, M., Wick, M 2014b. The influence of dietary lysine on yellow perch female reproductive performance and quality of eggs. *North Am. Journal of Aquaculture* 76: 351-358.
- 357.. Kwasek, K., Terova, G., Lee, B-J., Bossi, E., Sarogia, M., Dabrowski, K. 2014. Dietary methionine supplementation alters the expression of genes involved in methionine metabolism in salmonids. *Aquaculture* 433: 223-228.
356. Kamaszewski, M., Prasek, M., Ostaszewska, T., Dabrowski, K. 2014. The influence of feeding diets containing wheat gluten supplemented with dipeptides or free amino acids on structure and development of the skeletal muscle of carp (*Cyprinus carpio*). *Aquaculture International.* 22:259-271.
355. Portella, M.C., Takata, R., Leitao, N.J., Menosssi, O.C., Kwasek, K., Dabrowski, K. 2013. Free amino acids in pacu, *Piaractus mesopotamicus*, eggs and larvae. *J. World Aqua. Soc.* 44: 425-434.
354. Hussein, E.E-S., Dabrowski, K. El-Saidy, D.M.S.D., Lee, B-J. 2013. Effect of dietary phosphorus supplementation on utilization of algae in the grow-out diet of Nile tilapia *Oreochromis niloticus*. *Aquaculture Research* 44: 1553-1544.
353. Hussein, E.E-S., Dabrowski, K. El-Saidy, D.M.S.D., Lee, B-J. 2013. Enhancing the growth of Nile tilapia larvae-juveniles by replacing plant (gluten) protein with algae protein. *Aquaculture Research* 44: 937-949.
352. Arslan, M., Dabrowski, K., Ferrer, S., Dietrich, M. and Rodriguez, G. 2013. Growth, body chemical composition and trypsin activity of South American catfish, surubim (*Pseudoplatystoma* sp.) juveniles fed different dietary protein and lipid levels. *Aquaculture Res.* 44: 760-771.
351. Zaccone, D., Grimes, A.C.; Farrell, A.P., Dabrowski, K. 2013. Morphology, innervation and its phylogenetic step in the heart of the longnose gar *Lepisosteus osseus*. *Acta Zoologica* 93: 381-389.

350. Ostaszewska, T. Dabrowki, K., Kamaszewski, M. 2013. The effect of dipeptide, Lys-Gly, supplemented diets on digestive tract histology in juvenile yellow perch (*Perca flavescens*). *Aquaculture Nutrition* 19: 100-109
349. Rodriguez, Gustavo A Rodríguez-Montes de Oca, Eva A Medina-Hernández, Jeniffer Velázquez-Sandoval, Vanesa V López-López; José Cristóbal Román-Reyes, Konrad Dabrowski, Maria C Haws. 2012. Production of “Chame” (*Dormitator latifrons*, Pisces: Eleotridae) larvae using GnRH $\alpha$  and LHRH $\alpha$ . *Revista Colombiana de Ciencias Pecuarias* 25: 422-429.
348. Haliloğlu, H.I., Arslan, M., Lee B.-J., Dabrowski, K. 2012. The effects of dietary turnip (*Brassica rapa*) and biofuel algae on growth and chemical composition in rainbow trout (*Oncorhynchus mykiss*) juveniles. *Turkish Journal of Fisheries and Aquatic Sciences* 12: 323-329.
347. Kwasek, K., Terova G., Dabrowski, K. and Macdonald Wick. 2012. The effect of dietary dipeptide lysine-glycine on growth, muscle proteins, and intestine *PepT1* gene expression in juvenile yellow perch. *Reviews in Fish Biology and Fisheries* 22: 797-812
346. Kwasek, K., Dabrowski, K., Ware, K., Reddish, J.M., Wick, M. 2012. The effect of lysine-supplemented wheat gluten-based diets on yellow perch *Perca flavescens* (Mitchill) performance. *Aqua. Res.* 43: 1384-1391.
345. Czesny, S.J., Rinchar, J., Lee, B.J., Dabrowski, K., Dettmers, J.M. and Cao, Y. 2012. Does spatial variation in egg thiamine and fatty acid concentration of Lake Michigan Lake trout *Salvelinus namaycush* lead to differential early mortality syndrome and yolk oedema mortality in offspring? *Journal of Fish Biol.* 80: 2475-2493.
344. Lee, B.-J., Jaroszevska, M., Dabrowski, K., 2012. Effects of dietary vitamin B-1 (thiamine) and magnesium on the survival, growth and histological indicators in lake trout (*Salvelinus namaycush*) juveniles. *Comp. Biochem. Physiol.* 162: 219-226.
343. Zaccone, D., Dabrowski, K., Rita, L.E. 2012. The simultaneous presence of neuroepithelial cells and neuroepithelial bodies in the respiratory gas bladder of the longnose gar, *Lepisosteus osseus*, and the spotted gar, *L. oculatus*. *Acta Histochemica* 114: 370-378.
342. Dietrich, M.A., Dabrowski, K., Arslan, M., Ware, K., Van Tassel, J. 2012. Quantifying quality attributes of walleye eggs prior to fertilization – impact of time of ovulation and gamete storage. *J. Great Lakes Res.* 38: 445-450.
341. Verri, T., Terova, G., Dabrowski, K., Saroglia, M. 2011. Peptide transport and animal growth: the fish paradigm. *Biology Letters* 7: 597-600.
340. Rinchar, J., Ware, K., Dabrowski, K., van Tassel, J., Marschall, E., Stein R.A. 2011. Egg thiamine concentration affects embryo survival in Lake Erie walleye. *Environmental Biology of Fishes* 90: 53-60.
339. Falahatkar, B., Dabrowski, K., Arslan, M., 2011. Ascorbic acid turnover in rainbow trout, *Oncorhynchus mykiss*: Is there a vitamin enrichment effect during embryonic period on the juvenile fish "sensitivity" to deficiency? *Aquaculture* 320: 99-105
338. Czesny, S., Rinchar, J., Dale, H.S., Dabrowski, K. 2011. Fatty acid signatures of Lake Michigan prey fish and invertebrates: among-species differences and spatiotemporal variability. *Can. J. Fish. Aquat. Sci.* 68: 1211-1230.
337. Bowzer, J., Dabrowski, K., Ware, K. 2011. Growth, Survival, and Body Composition of sunshine bass after a feeding and fasting Experiment. *North Am. J. Aquacult.* 73: 373-382.
336. Bowzer J., Dabrowski, K., Jaroszevska, M., 2011. Evaluation of the viability and growth of walleye embryos and larvae after antiviral iodine treatment. *North Am. J. Aquacult.* 73: 383-392.
335. Zaccone, D., Grimes, A. C., Sfactoria, A., Dabrowski, K. 2011. Complex innervation patterns of the conus arteriosus in the heart of the longnose gar, *Lepisosteus osseus*. *Acta Histochemica* 113: 578-584.



334. Jaroszevska, M., Dabrowski, K. 2010. Does a fish with lungs exist? Morphological and physiological adaptations to aquatic hypoxia and hyperoxia. *Kosmos* 59: 1-18.
333. Ostaszewska, T., Dabrowski, K., Kamaszewski, M., Grochowski, P., Verri, T., Rzepkowska, M., Wolnicki, J. 2010. The effect of plant protein-based diet supplemented with dipeptide or free amino acids on digestive tract morphology and PepT1 and PepT2 expressions in common carp (*Cyprinus carpio* L.). *Comparative Biochem. Physiol. A*, 157: 158-169.
332. Jaroszevska, M., Dabrowski, K., Rodríguez, G., 2010. Development of testis and digestive tract in longnose gar (*Lepisosteus osseus*) at the onset of exogenous feeding of larvae and in juveniles. *Aquaculture Research* 41: 1486-1497.
331. Ostaszewska, T., Kamaszewski, M., Grochowski, P., Dabrowski, K., Verri, T., Aksakal, E., Szatkowska, I., Nowak, Z., Dobosz, S., 2010. The effect of peptide absorption on PepT1 gene expression and digestive system hormones in rainbow trout (*Oncorhynchus mykiss*). *Comparative Physiology and Biochemistry Part A*; 155: 107-114.
330. Kwasek, K., Dabrowski, K. 2010. Utilization of dipeptide/protein based diets in larval and juvenile Koi carp-post prandial free amino acid levels. *Journal of Animal Physiology and Animal Nutrition* 94: 35-43.
329. Czesny, S., Dettmers, J.M., Rinchar, J., Dabrowski, K. 2009. Linking egg thiamine and fatty acid concentrations of Lake Michigan Lake trout with Early Life Stage Mortality. *Journal of Aquatic Animal Health* 21: 262-271.
328. Lee, B.-J., Jaroszevska, M., Dabrowski, K., Czesny, S, Rinchar, J., 2009: Effects of vitamin B<sub>1</sub> (thiamine) deficiency in lake trout alevins and preventive treatments; *Journal of Aquatic Animal Health* 21: 290-301.
327. Park, K.H., Rodriguez-Montes, de Oca G.A., Bonello, P., Lee, K.J., Dabrowski, K. 2009. Determination of quercetin concentrations in fish tissues after feeding quercetin-containing diets. *Aquaculture International* 17: 537-544.
326. Jaroszevska, M., Dabrowski, K. 2009: The nature of exocytosis in the yolk trophoblastic layer of silver arowana (*Osteoglossum bicirrhosum*) juvenile, the representative of ancient teleost fishes. *Anatomical Record-Advances in Integrative Anatomy and Evolutionary Biology*, 292: 1745-1755.
325. de Oca, G.A.R.M., Dabrowski, K., Park, K., Lee, K.J., Abiada, M.A., 2009. Interaction of phytochemical-quercetin with the other antioxidant, ascorbic acid and their protective effect in tilapia after ultraviolet irradiation. *Journal of the World Aquaculture Society*, 40: 586-600.
324. Lesiów, T., Ockerman, H., Dabrowski, K. 2009. Composition, properties and sensory quality of rainbow trout affected by feed formulations. *Journal of the World Aquaculture Society*, 40: 678-686.
323. Jaroszevska, M., Lee, B.J., Dabrowski, K., Czesny, S., Rinchar, J., Trzeciak, P., Wilczyńska, B. 2009. Effects of vitamin B<sub>1</sub> (thiamine) deficiency in lake trout (*Salvelinus namaycush*) alevins at hatching stage. *Comparative Physiology and Biochemistry Part A*; 154: 255-262;
322. Dabrowski, K., Ware, K., Jaroszevska, M., Kwasek, K., 2009: Evaluation of walleye embryo survival and larval viability following iodine treatment. *North American Journal of Aquaculture* 71(2): 122-129.
321. Kwasek, K., Zhang, Y.F., Hliwa, P., Gomułka, P., Ostaszewska, T., Dabrowski, K., 2009: Free amino acids as indicators of nutritional status of silver bream (*Vimba vimba*), when using commercial and purified diet. *Comp. Bioch. Physiol. A*: 153: 113-119.
320. Arslan, M., Dabrowski, K., Portella, M.C. 2009. Growth, fat content and fatty acid profile of South American catfish, surubim (*Pseudoplatystoma fasciatum*) juveniles fed live, commercial and formulated diets. *Journal of Applied Ichthyology* 25: 73-78
319. Babiak, I., Lecewicz, M., Dabrowski, K., Babiak, J. 2008. Crypreservation of rainbow trout blastoderm. *Cybiu* 32: 139-141.

318. Jaroszewska, M., Dabrowski, K., 2008: Morphological analysis of the functional design of the connection between alimentary tract and the gas bladder in air-breathing lepisosteid fish. *Ann. Anat. –Anatomischer Anzeiger*, 190: 383-390.
317. Ostaszewska, T. Dabrowski, K., Hliwa, P., Gomólka, P., Kwasek, K., 2008. Nutritional regulation of intestine morphology in larval cyprinid fish, silver bream (*Vimba vimba*). *Aquac. Res.* 39: 1268-1278.
316. Jaroszewska, M., Dabrowski, K., Wilczynska, B., Kakreko, T. 2008. Structure of the gut of the racergoby *Neogobius gymnotrachelus* (Kessler 1857). *J. Fish Biol.* 72: 1773-1786.
315. Rinchar, J., K. Dabrowski. 2008. Growth, survival, and body composition of yellow perch juveniles fed commercial and experimental diets. *North Am. J. Aquaculture* 70: 74-79.
314. Ostaszewska, T., K. Dabrowski, A. Wegner and M. Krawiec. 2008. The effects of feeding on muscle growth dynamics and the proliferation of myogenic progenitor cells during pike-perch development (*Sander lucioperca*). *J. World Aquacult. Soc.* 39: 184-195.
313. Dabrowski, K., M. Arslan, J. Rinchar, M.E. Palacios. 2008. Growth, maturation, induced spawning, and production of the first generation of South American catfish (*Pseudoplatystoma* sp.) in the North America. *J. World Aquacult. Soc.* 39: 174-182.
312. Arslan, M., K. Dabrowski, M.C. Portella and J. Rinchar. 2008. The role of dietary lipids and fatty acids in growth and body fatty acid composition of surubim (*Pseudoplatystoma fasciatum*). *J. World Aqua. Soc.* 39: 51-61.
311. Dabrowski, K., Zhang, Y., Arslan, M., Terjesen, B.F. 2007. Indispensable amino acid deprivation does not cause rapid amino acid depletion in fish body and this principle has a potential to be used as a new strategy in nutrition. *Rev.Columbiana Cienc.Pec.* 20: 508-511.
310. Dabrowski, K., M. Arslan, B.F. Terjesen and Y. Zhang. 2007. The effect of dietary indispensable amino acid imbalances on feed intake: Is there a sensing of deficiency and neural signaling present in fish? *Aquaculture* 268:136-142.
309. Siripornadulsit, S., K. Dabrowski and R. Sayre. 2007. Microalgal vaccines. *Transgenic Bicroalgae as Green Cell Factories.* 616:122-128.
308. Trattner, S., J. Pickova, K.H. Park, and K. Dabrowski. 2007. Effects of alpha-lipoic and ascorbic acid on the muscle and brain fatty acids and antioxidant profile of the South American pacu *Piaractus*. *Aquaculture* 273(1):158-164.
307. Abiado, M.A., M. Penn and K. Dabrowski. 2007. Evaluation of an electronic hydraulic pressure chamber for large-scale production of triploid saugeyes and survival and growth in ponds. *North Am. J. Aquaculture.* 69: 197-201.
306. Rinchar, J., S. Czesny and K. Dabrowski. 2007. Influence of fatty acid deficiency and lipid class on survival, growth and fatty acid composition in rainbow trout juveniles. *Aquaculture* 264:363-371.
305. Gatlin III, D.M., F.T. Barrows, P. Brown, K. Dabrowski, T.G. Gaylord, R.W. Hardy, E. Herman, G. Hu, A. Krogdahl, R. Nelson, K. Overturf, M. Rust, W. Sealey, D. Skonberg, E. J. Souza, D. Stone, R. Wilson and E. Wurtele. 2007. Expanding the utilization of sustainable plant products in aquafeeds: a review. *Aquaculture Res.* 38:551-579.
304. Park, K.H., B.F. Terjesen, M.B. Tesser, M.C. Portella and K. Dabrowski. 2006.  $\alpha$ -Lipoic acid-enrichment partially reverses ascorbic acid depletion in teleost fish fed vitamin C-devoid diets. *Fish Physiol. Biochem.* 32:329-338.
303. Rinchar, J., K. Dabrowski and M.A. Garcia-Abiado. 2006. High efficiency of meiotic gynogenesis in sea lamprey, *Petromyzon marinus*. *J. Exp. Zool* 306B: 521-527.

302. Zhang, Y., K. Dabrowski, P. Hliwa and P. Gomolka. 2006. Indispensable amino acid concentrations decrease in tissues of stomachless fish, common carp in response to free amino acid- or peptide-based diets. *Amino Acids* 31:165-172.
301. Falahatkar, B., K. Dabrowski, J. Rinchar and M. Arslan. 2006. Effects of ascorbic acid enrichment by immersion of rainbow trout (*Oncorhynchus mykiss*) eggs and embryos. *Aquacult. Res* 37:834-841.
300. Palacios, M.E., K. Dabrowski, M.A. Abiado, K.J. Lee and C. Kohler. 2006. Effects of diets formulated with native Peruvian plants on growth and feeding efficiency of red pacu (*Piaractus brachypomus*) juveniles. *J. World Aqua. Soc.* 37:246-255.
299. Terjesen, B.F., K.J. Lee, Y. Zhang, M. Failla and K. Dabrowski. 2006. Optimization of dipeptide-protein mixtures in experimental diet formulations for rainbow trout alevins. *Aquaculture* 255: 217-225.
298. Garcia-Abiado, M.A., M. Penn and K. Dabrowski. 2006. Case study on eye abnormalities in tank-reared hybrid walleyes (*Sander vitreus* x *S. canadensis*). *Aquacult. Res.* 37:443-448.
297. Ciereszko, A., K. Dabrowski, J. Froschauer and T.D. Wolfe. 2006. Cryopreservation of semen from lake sturgeon (*Acipenser fulvescens*). *Transactions of the American Fisheries Society* 135:232-240.
296. Lee, K.J., J. Rinchar, K. Dabrowski and J.S. Ottobre. 2006. Long-term effects of dietary cottonseed meal on growth and reproductive performance of rainbow trout: 3 year study. *Animal Feed Sci. Technol.* 126:93-106.
295. Ciereszko, A., T.D. Wolfe and K. Dabrowski. 2005. Analysis of DNA damage in sea lamprey (*Petromyzon marinus*) spermatozoa by UV, hydrogen peroxide, and the toxicant bisazir. *Aquatic Tox.* 73:128-138.
294. Dabrowski, K., B.F. Terjesen, Y. Zhang, J.M. Phang and K-J. Lee. 2005. A concept of dietary dipeptides: a step in resolving the problem of amino acid availability during the early life of vertebrates. *J. Exp. Biol.* 208:2885-2894.
293. Ostaszewska, T., K. Dabrowski, K. Czuminiska, W. Olech, and M. Olejniczak. 2005. Rearing of pike-perch larvae using formulated diets – first success with starter feeds. *Aquacult. Res.* 36:1167-1176.
292. Rinchar, J., K. Dabrowski, J.J. van Tassell and R.A. Stein. 2005. Walleye *Sander vitreum* fertilization success in influenced by gamete storage and sperm:egg ratio. *J. Fish Biol.* 67:1157-1161.
291. Tesser, M.B., B.F. Terjesen, Y. Zhang, M.C. Portella and K. Dabrowski. 2005. Free- and peptide-based arginine dietary supplementation for the South American fish pacu (*Piaractus mesopotamicus*). *Aquaculture Nutr.* 10 11:443-453.
290. Czesny, S., J. Rinchar and K. Dabrowski. 2005. Intra-population variation of egg lipid/fatty acid composition and embryo viability in walleye. *N. Am. J. Fish. Mgmt.* 25:122-129.
289. Matusiewicz, M., M. Krzystek-Korpaczka and K. Dabrowski. 2005. Characterization of arylsulfatase activity in brine shrimp, *Artemia salina*. *J. Exp. Mar. Biol. Ecol.* 317:175-187.
288. Ostaszewska, T., K. Dabrowski, M.E. Palacios, M. Olejniczak and M. Wiczorek. 2005. Growth and morphological changes in the digestive tract of rainbow trout and pacu due to casein replacement with soybean. *Aquaculture* 245 (1-4):273-286.
287. Lee K.J., K. Dabrowski, M. Sandoval and M.J.S. Miller. 2005. Activity-guided fractionation of phytochemicals of maca meal, their antioxidant activities and effects on growth, feed utilization and survival in rainbow trout juveniles. *Aquaculture* 244 (1-4):293-301.
286. Chen, R., R. Lochmann, A. Goodwin, K. Preeveen, K. Dabrowski and K.J. Lee. 2004. Effects of dietary vitamins C and E on alternative complement activity, hematology, tissue composition, vitamin concentrations and response to heat stress in juvenile golden shiner (*Notemigonus crysoleucas*). *Aquaculture* 242:553-569.

285. Glogowski, J., K. Dabrowski and A. Ciereszko. 2004. Effects of proteinase inhibitors on fertilization in sea lamprey. *Comp. Bioch. Physiol.* 139B:157-162.
284. Terjesen, B.F., K. Park, M.B. Tesser, M.C. Portella, Y. Zhang and K. Dabrowski. 2004. Lipoic acid and ascorbic acid affect plasma free amino acids selectively in the teleost fish pacu (*Piaractus mesopotamicus*). *J. Nutr.* 134:2930-2934.
283. Garcia-Abiado, M.A., G. Mbahinzireki, J. Rinchar, K-J. Lee and K. Dabrowski. 2004. Effect of diets containing gossypol on blood parameters and spleen structure in *Oreochromis* sp. reared in a recirculated system. *J. Fish Disease* 27: 359-368.
282. Mahan, D., S. Ching and K. Dabrowski. 2004. Developmental aspects and factors influencing the synthesis and status of ascorbic acid in the pig. *Ann. Rev. Nutr.* 24: 79-103
281. Gomelsky, B., K. Dabrowski, M.A. Garcia-Abiado, W. Stilwell, J.H. Tidwell, S.D. Coyle. 2004. Ploidy of backcross hybrids of largemouth bass and smallmouth bass. *N. Am. J. Aquac.* 6(2):133-136.
280. Guz, L., K.J. Lee, K. Dabrowski, V. Verlhac. 2004. Characterizing the immune response of rainbow trout to *Aeromonas salmonicida* ssp *salmonicida* antigens. *Medycyna Weterynaryjna* 60(4):374-378.
279. Dabrowski, K., K.J. Lee, L. Guz, V. Verlhac and J. Gabaudan. 2004. Effects of dietary ascorbic acid against oxygen stress (hypoxia or hyperoxia), growth and its tissue concentrations in juvenile rainbow trout. *Aquaculture* 233: 383-392.
278. Lee, K.J. and K. Dabrowski. 2004. Long-term effects and interactions of dietary vitamin C and E on growth and reproduction of yellow perch, *Perca flavescens*. *Aquaculture* 230: 377-389.
277. Ciereszko, A., I. Babiak and K. Dabrowski. 2004. Efficacy of animal anti-fertility compounds against sea lamprey (*Petromyzon marinus*) spermatozoa. *Theriogenology* 61: 1039-1050.
276. Lee, K.J., K. Dabrowski, J. Rinchar, C. Gomez, L. Guz and C. Vilchez. 2004. Supplementation of maca (*Lepidium meyenii*) tuber meal in diets improves growth rate and survival of fish. *Aquacult. Res.* 35: 1-9.
275. Abiado, M.A., K. Dabrowski and S. Czesny. 2004. Tank performance of larval saugeys (*Stizostedion vitreum* x *S. canadense*) produced out of season and during regular season spawning. *N. Am. J. Aquaculture* 66:48-52.
274. Babiak, I. and K. Dabrowski. 2003. Refrigeration of rainbow trout gametes and embryos. *J. Exp. Zool.* 300A:140-151.
273. Rinchar, J., K.J. Lee, S. Czesny, A. Ciereszko and K. Dabrowski. 2003. Effect of feeding cottonseed meal - containing diets to broodstock rainbow trout and impact on growth of their progenies. *Aquaculture* 227: 77-87.
272. Dabrowski, K., J. Rinchar, J. Ottobre, F. Alcantara, P. Padilla, A. Ciereszko, M. J. De Jesus and C.C. Kohler. 2003. Effect of oxygen saturation in water provided to broodstock and embryos of *Piaractus brachypomus* on viability of larvae. *J. World. Aquacult.Soc* 34:441-449.
271. Rinchar, J., K.J. Lee, K. Dabrowski, A. Ciereszko, J.H. Blom and J.S. Ottobre. 2003. Influence of gossypol derived from dietary cottonseed meal on reproductive steroids and tissue gossypol isomer concentrations in fish. *Aquacult. Nutr.* 9:275-282.
270. Yufera, M. S. Kolkovski, C. Fernandes-Diaz, J. Rinchar, K.J. Lee and K. Dabrowski. 2003. Delivering bioactive compounds to fish larvae using microencapsulated diets. *Aquaculture* 227:277-291.
269. Yanik, T., K. Dabrowski and S.C. Bai. 2003. Replacing fish meal in rainbow trout (*Oncorhynchus mykiss*) diets. *Israeli J. Aquacult.* 55:179-186.

268. Dabrowski, K., K.J. Lee and J. Rinchard. 2003. Utilization of dipeptide-based diets in small vertebrate, rainbow trout. *J. Nutr.* 133:4225-4229.
267. Czesny, S., J. Rinchard, M.A. Garcia-Abiado and K. Dabrowski. 2003. The effect of fasting, prolonged swimming, and predator presence on energy utilization and stress in juvenile walleye (*Stizostedion vitreum*). *Physiol. Behav.* 79:597-603.
266. Chen, R., R. Lochmann, A. Goodwin, K. Praveen, K. Dabrowski and K.J. Lee. 2003. Alternative complement activity and resistance to heat stress in golden shiners are increased by dietary vitamin C levels. *J. Nutr.* 133:2281-2286.
265. Ching, S., K. Mahan, R. Moreau and K. Dabrowski. 2003. Modification of analytical procedures for gulonolactone oxidase analysis in swine. *J. Nutritional Biochem.* 14:139-146.
264. Moreau R. and K. Dabrowski. 2003. Tocopherol down regulates gulonolactone oxidase activity in sturgeon. *Free Rad. Biol. Med.* 34:1326-1332.
263. Luczynski, M.J., K. Demaska-Zakes, K. Dabrowski and M. Luczynski. 2003. Masculinization of gynogenetic northern pike (*Esox lucius* L.) juveniles using 17-methyltestosterone. *North Am. J. Aquaculture* 65:255-259.
262. Lee, K.J. and K. Dabrowski. 2003. Interaction of vitamin C and E in yellow perch (*Perca flavescens*) nutrition and reproduction. *Br. J. Nutr.* 89:589-596.
261. Rinchard, J., K. Dabrowski and J. Ottobre. 2002. Changes in plasma steroid concentrations associated with spontaneous or induced ovulation in yellow perch, *Perca flavescens*. *Fish Physiol. Biochem.* 26:239-248.
260. Rinchard, J., G. Mbahinzireki, K. Dabrowski, K-J. Lee, M.A. Garcia-Abiado and J.S. Ottobre. 2002. Effects of dietary substitution of animal protein with plant protein on reproductive parameters of tropical fish tilapia, *Oreochromis* sp. *Aquacult. Internat.* 10:11-28.
259. Lee, K-J. and K. Dabrowski. 2002. High-performance liquid chromatographic determination of gossypol and gossypolone enantiomer in fish tissues using simultaneous electrochemical and ultraviolet detectors. *J. Chromatogr. B* 779:313-319.
258. Yufera, M., S. Kolkovski, C. Fernandez-Diaz, J. Rinchard, K.J. Lee and K. Dabrowski. 2002. Free amino acid leaching from a protein-walled microencapsulated diet for fish larvae. *Aquaculture* 214:273-287.
257. Czesny, S., M.A. Garcia-Abiado, K. Dabrowski and P. Bajer. 2002. Comparison of foraging performance of diploid and triploid saugeye. *Trans. Am. Fish. Soc.* 131:980-985.
256. Lee, K-J. and K. Dabrowski. 2002. Tissue gossypol and gossypolone enantiomers in rainbow trout fed low and high levels of dietary cottonseed meal. *J. Agric. Food Chem.* 50:3056-3061.
255. Dabrowski, K., R.E. Ciereszko, A. Ciereszko, and J.S. Ottobre. 2002. *In vitro* production of ovarian steroids in yellow perch (*Perca flavescens*): effects of photothermal manipulation, gonadotropin and phorbol ester. *Reproductive Biol.* 2:75-96.
254. Garcia-Abiado, M.A., W. E. Lynch, K. Dabrowski, S. Czesny and J. Rinchard. 2002. Effect of triploidy on survival and growth of juvenile saugeye (*Stizostedion vitreum* x *S. canadensis*) for reservoir stocking. *Fisheries Managm. Ecology* 9:105-110.
253. Lee K-J., K. Dabrowski, J.H. Blom, S.C. Bai and P.C. Stromberg. 2002. Mixture of animal and plant protein sources can completely replace fish meal in a diet for juvenile rainbow trout (*Oncorhynchus mykiss*). *J. Anim. Physiol. Anim. Nutr.* 86:201-213.
252. Ciereszko, A., K. Dabrowski, G.P. Toth, S.A. Christ and J. Glogowski. 2002. Factors affecting motility characteristics and fertilizing ability of sea lamprey spermatozoa. *Trans. Am. Fish. Soc.* 131:193-202.

251. Rinchar, J., M.A. Garcia-Abiado, K. Dabrowski, J. Ottobre and D. Schmidt. 2002. Induction of gynogenesis, rearing and gonad development in muskellunge. *J. Fish Biol.*60:427-441.
250. Frankiewicz, P., K. Dabrowski, W. Rucinski and M. Zalewski. 2001. The role of the shoreline ecotonal zone in spawning success and early life history of dominant fish species in the lowland Sulejow Reservoir. *Ecohydrology and Hydrobiology* 1:177-184.
249. Mbahinzireki, G.B., K. Dabrowski, K-J Lee, D. El-Saidy and E.R. Wisner. 2001. Growth, feed utilization and body composition of tilapia (*Oreochromis* sp.) fed cottonseed meal-based diets in a recirculating system. *Aquacult. Nutrition* 79:189-200.
248. Lapinska, M., P. Frankiewicz, K. Dabrowski and M. Salewski. 2001. The influence of littoral zone type and presence of YOY pike (*Esoc lucius*) on growth and behaviour of YOY pikeperch, *Stizostedion lucioperca* (L.) – consequences for water quality in lowland reservoirs. *Ecohydrology and Hydrobiology* 3:355-372.
247. Ciereszko, A., K. Dabrowski, B. Piros, J. Kwasnik and J. Glogowski. 2001. Characterization of zebra mussel (*Dreissena polymorpha*) sperm motility: effects of cations, pH and gossypol. *Hydrobiologia*. 452:225-232.
246. Dabrowski, K. and A. Ciereszko. 2001. Ascorbic acid and reproduction in fish: endocrine regulation and gamete quality. *Aquacult. Res.* 32: 623-638.
245. Czesny, S., K. Dabrowski and P. Frankiewicz. 2001. Foraging patterns of juvenile walleye (*Stizostedion vitreum*) in a system consisting of a single predator and two prey species: testing model predictions. *Can. J. Zool.* 79:1394-1400.
244. Ching, S., D.C. Mahan, J.S. Ottobre and K. Dabrowski. 2001. Ascorbic acid synthesis in fetal and neonatal pigs and in pregnant and postpartum sows. *J. Nutr.* 131:1997-2001.
243. Ching, S., D.C. Mahan and K. Dabrowski. 2001. Liver L-gulonolactone oxidase activity and tissue ascorbic acid concentrations in nursing pigs and the effect of various weaning ages. *J. Nutr.* 131:2002-2006.
242. Blom, J.H., K-J Lee, R. Rinchar, K. Dabrowski and J. Ottobre. 2001. Reproductive efficiency and maternal offspring transfer of goosypol in rainbow trout fed diets containing cottonseed meal. *J. Animal Sci.*79:1533-1539.
241. Rinchar, J., K. Dabrowski and J. Ottobre. 2001. Sex steroids in plasma of lake whitefish *Coregonus clupeaformis* during spawning in Lake Erie. *Comp. Biochem. Physiol.*129:65-74.
240. Lochmann, R., H. Phillips, K. Dabrowski and R. Moreau. 2001. Responses of juvenile golden shiner *Notemigonus crysoleucas* fed semipurified or practical diets with or without supplemental ascorbic acid. *J. World Aquacult. Soc.* 37:202-209.
239. Garcia-Abiado, M.A., J. Rinchar and K. Dabrowski. 2001. Meiotic gynogenesis induction in muskellunge *Esox masquinongy* by physical shocks. *J. World Aquacult. Soc.* 32:195-201.
238. Dabrowski, K., K-J Lee, J. Rinchar, A. Ciereszko, J.H. Blom and J. Ottobre. 2001. Gossypol isomers bind specifically to blood plasma protein and spermatozoa of rainbow trout fed diets containing cottonseed meal. *Bioch. Bioph. Acta* 1525:37-42.
237. Lee, K.J., K. Dabrowski, J.H. Blom and S.C. Bai. 2001. Replacement of fish meal by a mixture of animal by-products in juvenile rainbow trout. *N. Am. J. Aquacult.* 63:109-117.
236. Abiado, M.A., W.E. Lynch, K. Dabrowski and T. Hartman. 2001. Use of thermal and pressure shocks to induce triploid hybrid saugeyes. *N. Am J. Aquacult* 63:83-91.

235. Moreau R. and K. Dabrowski. 2001. Gulonolactone oxidase presence in fishes, activity and significance. In: Ascorbic Acid in Aquatic Organisms, Boca Raton, CRC Press, 13-32.
234. Dabrowska, H., S.W. Fisher, K. Dabrowski, B.R. Woodin and J.J. Stegeman. 2000. Hepatic P4501A activity, plasma sex steroids and gonadal steroidogenesis *in vitro* in yellow perch exposed to 3, 3', 4, 4', 5-pentachlorobiphenyl (PCB126). *Environ. Chem. Toxicol.* 19:3052-3060.
233. Demska-Zakes, K., M.J. Luczynski, K. Dabrowski, M. Luczynski and J. Krol. 2000. Masculinization of northern pike fry using the steroid 11-beta-hydroxy androstenedione. *N. Am. J. Aquacult.* 62:294-299.
232. El-Saidy, D., K. Dabrowski and S.C. Bai. 2000. Nutritional effects of protein source in starter diets for channel catfish. *Aquacult. Res.* 31:885-892.
231. Kolkovski, S., C. Yackey, R. Moreau, F. Cihla, D. Mahan and K. Dabrowski. 2000. The effect of vitamins C and E in n-3 HUFA enriched *Artemia* nauplii on growth survival, and stress resistance of walleye, *Stizostedion vitreum*. *Aquacult. Nutrition* 6:199-206.
230. Moreau, R. and K. Dabrowski. 2000. Biosynthesis of ascorbic acid by extant Actinopterygians. *J. Fish Biol.* 57:733-745.
229. Lin, F., K. Dabrowski, M.J. Luczynski and M. Luczynski. 2000. Mosaic individuals found in genetically manipulated northern pike (*Esox lucius*). *J. Appl. Ichthyol.* 17:85-88.
228. Ciereszko, A. and K. Dabrowski. 2000. Ascorbic acid supplement in vitro does not improve fish sperm quality. *Aquacult. Intern.* 8:1-8.
227. Dabrowski, K., J. Rinchar, F. Lin, M-A.G. Abiabo and D. Schmidt. 2000. Induction of gynogenesis in muskellunge with irradiated sperm of yellow perch proves diploid muskellunge male homogamety. *J. Exp. Zool.* 287:96-105.
226. Dabrowski, K., S. Czesny, S. Kolkovski and W.E. Lynch, Jr. 2000. Intensive culture of walleye larvae produced out-of-season or during reegular season spawning. *J. North Am. Aquacult.* 62:219-224.
225. Ciereszko, A. and K. Dabrowski. 2000. In vitro effect of gossypol acetate on yellow perch (*Perca flavescens*) spermatozoa. *Aquatic Toxicology* 49:181-187.
224. Czesny, S., K. Dabrowski, J.E. Christensen, J.van Eenennaam and S. Doroshov. 2000. Discrimination of wild and domestic origin of sturgeon ova based on lipids and fatty acid analysis. *Aquaculture* 189:145-153.
223. Ciereszko, A., K. Dabrowski, D. Kucharczyk, S. Dobosz, K. Goryczko and J. Glogowski. 2000. The presence of uric acid, an antioxidative substance, in fish seminal plasma. *Fish Physiol. & Biochem.* 21:313-315.
222. Ciereszko, A., K. Dabrowski, S.D. Mims and J. Glogowski. 2000. Characteristics of sperm acrosin-like activity of paddle fish (*Polydon spathula* Walbaum). *Comparative Biochem. & Physiol.* 125B:197-203.
221. Glogowski, J., M. Kwasnik, B. Piros, K. Dabrowski, K. Goryczko, S. Dobosz, H. Kuzminski and A. Ciereszko. 2000. Characterization of rainbow trout milt collected with a catheter: semen parameters and cryopreservation success. *Aquaculture Res.* 31:289-296.
220. Dabrowski, K., J. Rinchar, K.J. Lee, J.H. Blom and J. Ottobre. 2000. Effects of diets containing gossypol on reproductive capacity of male rainbow trout. *Biol. Reprod.* 62:227-234.
219. Ciereszko, A., J. Glogowski and K. Dabrowski. 2000. Biochemical characteristics of seminal plasma and spermatozoa of freshwater fishes: relation to semen biology quality and cryopreservation. In: T.R. Tiersch (ed.), Cryopreservation in Fish, The World Aquaculture Society, 20-48.

218. Ciereszko, A., J. Glogowski and K. Dabrowski. 2000. Fertilization in land locked sea lamprey (*Petromyzon marinus*): storage of gametes, optimal sperm/egg ratio, and methods of assessing fertilization success. *J. Fish Biol.* 56:495-505.
217. Kolkovski, S., C. Yackey, S. Czesny and K. Dabrowski. 2000. The effect of microdiet supplementation of dietary digestive enzymes and a hormone on growth and enzyme activity in yell perch juveniles. *North Am. J. Aquacult.* 62:130-134.
216. Gomelsky, B., S.D. Mims, R.J. Onders, W.L. Shelton, K. Dabrowski and M.A. Garcia-Abiado. 2000. Induced gynogenesis in black crappie. *North Am. J. Aquaculture* 62:33-41.
215. Blom, J.H. and K. Dabrowski. 2000. Vitamin C requirements of the angelfish *Pterophylum scalare*. *J. World Aquac. Soc.* 31:115-118.
214. Kolkovski, S., S. Czesny and K. Dabrowski. 2000. Use of krill hydrolysate as a feed attractant for fish larvae and juveniles. *J. World Aquac. Soc.* 31:81-88.
213. Ciereszko, A., M. Kwasnik, K. Dabrowski, B. Piros and J. Glogowski. 2000. Chromatographic separation of trypsin-inhibitory activity of rainbow trout blood and seminal plasma. *Fish & Shellfish Immunology* 10:91-94.
212. Rinchar J., A. Ciereszko, K. Dabrowski and J. Ottobre. 2000. Effect of gossypol on sperm viability and plasma sex steroids hormones in male sea lamprey, *Petromyzon marinus*. *Toxicol. Lett.* 111:189-198.
211. Blom J.H., K. Dabrowski, J.D. Rapp, Y. Sakakura and K. Tsukamoto. 1999. Competition for space and food in rainbow treout, *Oncorhynchus mykiss*, as related to ascorbic acid status. *Aquaculture* 180:79-87.
210. Moreau, R., P. Sato and K. Dabrowski. 1999. Renal L-gulonolactone oxidase activity as affected by dietary ascorbic acid in the lake sturgeon (*Acipenser fulvescens*). *Aquaculture* 180:359-372.
209. Moreau, R., K. Dabrowski, S. Czesny and F. Cihla. 1999. Vitamin C-vitamin E interaction in juvenile lake sturgeon (*Acipenser fulvescens*). *J. Appl. Ichthyol.* 15:250-257.
208. Ciereszko, A. G. Toth, S. Christ, F. Lin and K. Dabrowski. 1999. Effects of extenders and time of milt storage before freezing on fertilizing ability and motility characteristics of cryopreserved muskellunge spermatozoa. *Trans. Am. Fish. Soc.* 128:542-548.
207. Glogowski, J., A. Ciereszko and K. Dabrowski. 1999. Cryopreservation of muskellunge and yellow perch semen. *North Am. J. Aquaculture* 61:258-262.
206. Rinchar, J., K. Dabrowski, M.A. Abiado and J. Ottobre. 1999. Uptake and depletion of plasma 17-methyltestosterone during induction of maskulinization in muskellunge, *Esox masquinongy*: effect on plasma steroids and sex reversal. *Steroids* 64:518-525.
205. Czesny, S., S. Kolkovski, K. Dabrowski and D. Culver. 1999. Growth, survival and quality of juvenile walleye *Stizostedion vitreum* as influenced by n-3 HUFA enriched *Artemia* nauplii. *Aquaculture* 178:103-115.
204. Garcia-Abiado, M.A., K. Dabrowski, J.F. Christensen and S. Czesny. 1999. Use of erythrocyte measurements to easily identify triploid suageye. *North Am. J. Aquaculture* 61:319-325.
203. Dabrowska, H., S.W. Fisher, K. Dabrowski and A.E. Staubus. 1999. Dietary uptake efficiency of 2,2', 4,4',5,5' - Hexachlorobiphenyl in yellow perch and rainbow trout: role of dietary and body lipids. *Envir. Toxicol. Chem.* 18 5:938-945.
202. Ciereszko, A., K. Dabrowski, F. Lin and L. Li. 1999. Protective role of ascorbic acid against damage to male germ cells in scurvy-prone vertebrate model. *Can. J. Fish. Aquat. Sci.* 56:178-183.



201. Honeyfield, D.C., J.G. Hnath, J. Copeland, K. Dabrowski and J.H. Bloom. 1998. Thiamine and ascorbic acid and environmental contaminants in Lake Michigan coho salmon displaying early mortality syndrome. *American Fisheries Society Symposium* 21:135-145.
200. Moreau, R. and K. Dabrowski. 1998. Fish acquired ascorbic acid synthesis prior to terrestrial vertebrate emergence. *Free Rad. Biol. Med.* 25:989-990
199. Ciereszko, A., B. Piros, K. Dabrowski, D. Kcharczyk, M.J. Luczynski, S. Dobosz and J. Glogowski. 1998. Serine proteinase inhibitors of seminal plasma of teleost fish: distribution of activity, electrophoretic profiles and relation to proteinase inhibitors of blood. *J. Fish Biol.* 53:1292-1305.
198. Czesny, S. and K. Dabrowski. 1998. The effects of fatty acids concentration in walleye (*Stizostedion vitreum*) eggs and embryos viability. *Aquatic Living Res.* 11:371-378.
197. Petroff, B.K., R.E. Ciereszko, K. Dabrowski, A.C. Ottobre, W.F. Pope and J.S. Ottobre. 1998. Prostaglandin F<sub>2α</sub> depletes luteal vitamin C by inducing secretion of the vitamin from porcine corpora lutea. *J. Reprod. Fertil.* 112:243-247.
196. Lin, F. and K. Dabrowski. 1998. Androgenesis and homozygous gynogenesis in *Esox masquinongy*: Evaluation using flow cytometry. *Mol. Reprod. Dev.* 49:10-18.
195. Ciereszko, A., L. Li and K. Dabrowski. 1998. Optimal conditions for determination of aspartate aminotransferase activity in rainbow trout and whitefish. *J. Appl. Ichthyol.* 14:57-63.
194. Blom, J.H. and K. Dabrowski. 1998. Continuous or "pulse-and-withdraw" supply of ascorbic acid in the diet: A new approach to altering the bioavailability of ascorbic acid, using teleost fish as a scurvy-prone model. *Int. J. Vitamin Nutr. Res.* 68:88-93.
193. Kolkovski, S. and K. Dabrowski. 1998. Off-season spawning of yellow perch. *Progr. Fish-Cult.* 60:133-136.
192. Moreau, R. and K. Dabrowski. 1998. Ascorbic acid synthesis in sea-lamprey: the evolutionary perspective into vertebrate reproduction. *Proc. Natl. Acad. Sci. USA* 95:10279-10282.
191. Ciereszko, R.E., K. Dabrowski, A. Ciereszko and J. Ottobre. 1998. Plasma concentrations of steroid hormones in male yellow perch, *Perca flavescens*: the effect of age and photothermal manipulation. *Env. Biol. Fishes* 51:97-105.
190. Toth, G., A. Ciereszko, S.A. Christ and K. Dabrowski. 1997. Objective analysis of sperm motility in the lake sturgeon, *Acipenser fulvescens*: Activation and inhibition conditions. *Aquaculture* 154:337-348.
189. Lin, F., K. Dabrowski and L. Timmermans. 1997. Early gonadal development and sex differentiation in muskellunge (*Esox masquinongy*). *Can. J. Zool.* 75:1262-1269.
188. Koshio, S., Y. Iida, Y. Sakakura, K. Tsukamoto, T. Kida and K. Dabrowski. 1997. The effect of vitamin C intake on growth, survival and schooling behavior of amphi-dromous fish, ayu (*Plecoglossus altivelis*). *Fisheries Sci. (Japan)* 63:619-624.
187. Petroff, B.K., K. Dabrowski, R.E. Ciereszko and J.S. Ottobre. 1997. Total ascorbate and dehydroascorbate concentrations in porcine ovarian stroma, follicles, and corpora lutea throughout the estrous cycle and pregnancy. *Theriogenology* 47:1265-1273.
186. Li, L., A. Ciereszko, S. Czesny and K. Dabrowski. 1997. Dietary ascorbyl monophosphate depresses lipid peroxidation in rainbow trout spermatozoa: Relationship between thiobarbituric acid, fatty acid composition and ascorbate concentration. *J. Aquatic Animal Health* 9:249-257.

185. Ciereszko, R.E., K. Dabrowski, A. Ciereszko and J. Ottobre. 1997. Effects of temperature and photoperiod on reproduction of female yellow perch, *Perca flavescens*: plasma concentrations of steroid hormones, spontaneous and induced ovulation, and quality of eggs. *J. World Aquacult. Soc.* 28:344-356.
184. Morrison, T.W., W.E. Lynch and K. Dabrowski. 1997. Predation on zebra mussel by freshwater drum and yellow perch in Western Lake Erie. *J. Great Lakes Res.* 23:179-191.
183. Brown, P.B., K. Dabrowski and D.L. Garling. 1996. Nutrition and feeding of yellow perch (*Perca flavescens*). *J. Appl. Ichthyol.* 12:171-174.
182. Frankiewicz, P., K. Dabrowski and M. Zalewski. 1996. Mechanism of establishing bimodality in a size distribution of age +0 pike perch, *Stizostedion lucioperca* (L.) in the Sulejow Reservoir, Central Poland. *Ann. Zool. Fennici* 33:321-327.
181. Frankiewicz, P., M. Zalewski, F. Schiemer and K. Dabrowski. 1996. Vertical distribution of planktivorous 0+ pike perch, *Stizostedion lucioperca* (L.), in relation to particular or filter feeding. *Fisheries Managm. Ecology* 3:101-109.
180. Blom, J.H. and K. Dabrowski. 1996. Ascorbic acid metabolism in fish: Is there a material effect on the progeny? *Aquaculture* 147:215-224.
179. Dabrowski, K., R.E. Ciereszko, A. Ciereszko, G. Toth, S. Christ, D. El-Saidy and J.S. Ottobre. 1996. Reproductive physiology of yellow perch (*Perca flavescens*): Environmental and endocrinological cues. *J. Appl. Ichthyol.* 12:139-148.
178. Lin, F. and K. Dabrowski. 1996. Effect of sperm irradiation and heat shock on induction of gynogenesis in muskellunge (*Esox masquinongy*). *Can. J. Fish. Aquat. Sci.* 53:2067-2075.
177. Ciereszko, A., K. Dabrowski and S.I. Ochkur. 1996. Characterization of acrosin-like activity of lake sturgeon (*Acipenser fulvescens*) spermatozoa. *Molecular Reprod. Develop.* 45:72-77.
176. Moreau, R., S. Kaushik and K. Dabrowski. 1996. Ascorbic acid status as affected by dietary treatment in the Siberian sturgeon (*Acipenser baeri Brandt*): tissue concentration, mobilization and L-gulonolactone oxidase activity. *Fish Physiol. Biochem.* 15:431-438.
175. Moreau, R. and K. Dabrowski. 1996. Feeding stimulants in semi-purified diets for juvenile lake sturgeon (*Acipenser fulvescens Rafinesque*). *Aquacult. Res.* 27:953-957.
174. Ciereszko, A. and K. Dabrowski. 1996. Effect of a sucrose-DMSO extender supplemented with pentoxifylline or blood plasma on fertilizing ability of cryopreserved rainbow trout spermatozoa. *Progr. Fish Cult.* 58:154-156.
173. Ciereszko, A., L. Liu and K. Dabrowski. 1996. Effects of season and dietary ascorbic acid on some biochemical characteristics of rainbow trout semen. *Fish Physiol. Biochem.* 15:1-10.
172. Ciereszko, A., G.P. Toth, S.A. Christ and K. Dabrowski. 1996. Effect of cryopreservation and theophylline on motility characteristics of lake sturgeon (*Acipenser fulvescens*) spermatozoa. *Theriogenology* 45:665-672.
171. Dabrowska, H., S.W. Fisher, K. Dabrowski and A.E. Staubus. 1996. Dietary uptake efficiency of HCBP in channel catfish: the effect of fish contaminant body burden. *Environ. Toxic. Chem.* 15:746-749.
170. Dabrowski, K. and A. Ciereszko. 1996. The dynamics of gonad growth and ascorbate status in yellow perch. *Aquacult. Res.* 27:539-542.
169. Dabrowski, K., R. Moreau, D. El-Saidy and J. Ebeling. 1996. Ontogenetic sensitivity of channel catfish to ascorbic acid deficiency. *J. Aquat. Animal Health* 8:22-27.

168. Lin, F., A. Ciereszko and K. Dabrowski. 1996. Sperm production and cryopreservation in muskellunge after carp pituitary extract and human chorionic gonadotropin injection. *Progr. Fish Cult.* 58:32-37.
167. Lin, F., L. Liu and K. Dabrowski. 1996. Characteristics of muskellunge spermatozoa I: Ultrastructure of spermatozoa and biochemical composition of semen. *Trans. Am Fish. Soc.* 125:187-194.
166. Lin, F. and K. Dabrowski. 1996. Characteristics of muskellunge spermatozoa II. Effects of ions and osmolality on sperm motility. *Trans. Am. Fish. Soc.* 125:195-202.
165. Matusiewicz, M. and K. Dabrowski. 1996. Utilization of the bone/liver alkaline phosphatase activity ratio in blood plasma as an indicator of ascorbate deficiency in salmonid fish. *Proc. Soc. Exp. Biol. Med.* 212:44-51.
164. Moreau, R. and K. Dabrowski. 1996. The primary localization of ascorbate and its synthesis in the kidneys of acipenserid (*Chondrostei*) and teleost (*Teleostei*) fishes. *J. Comp. Physiol.* 166B:178-183.
163. Wlasow, T., K. Dabrowski and P. Poczyczynski. 1996. Effect of two different diets on thymus morphology in larval coregonids. *Acta Academ. Agric. Tech. Olstenensis Protectio Aquarum et Piscatoria* 22:59-64.
162. Dabrowski K. and A. Ciereszko. 1996. Ascorbic acid protects against male infertility in a teleost fish. *Experientia* 52:97-100.
161. Dabrowski, K., K. Matusiewicz, M. Matusiewicz, P.P. Hoppe and J. Ebeling. 1996. The bioavailability of vitamin C from two ascorbyl monophosphate esters in rainbow trout. *Aquacult. Nutrition*, 2:3-10.
160. Dabrowski, K., R.E. Ciereszko, J.H. Blom and J.S. Ottobre. 1995. Relationship between vitamin C and plasma concentrations of testosterone in female rainbow trout, *Oncorhynchus mykiss*. *Fish Physiol. Biochem.* 14:409-414.
159. Matusiewicz, M., K. Dabrowski, L. Volker and K. Matusiewicz. 1995. Ascorbate polyphosphate is a bioavailable vitamin C source in juvenile rainbow trout: tissue saturation and compartmentalization model. *J. Nutr.* 125:3055-3061.
158. Blom, J.H. and K. Dabrowski. 1995. Dietary ascorbyl phosphate results in high ascorbic acid content in eggs of rainbow trout. *Comp. Bioch. Physiol.* 112A:75-79.
157. Blom, J.H. and K. Dabrowski. 1995. Reproductive success of female's rainbow trout in response to graded dietary ascorbyl mono-phosphate levels. *Biol. Reprod.* 52:1073-1080.
156. Ciereszko, A. and K. Dabrowski. 1995. Spectrophotometric measurement of aspartate aminotransferase activity in mammalian and fish semen. *Animal Reprod. Sci.* 38:167-176.
155. Ciereszko, A. and K. Dabrowski. 1995. Sperm quality and ascorbic acid concentration in rainbow trout semen are affected by dietary vitamin C: An across season study. *Biol. Reprod.* 52:982-988.
154. Liu, L., K. Dabrowski and A. Ciereszko. 1995. Protective effect of seminal plasma proteins on the degradation of ascorbic acid. *Moll. Cell. Biochem.* 148:59-66.
153. Matusiewicz, M. and K. Dabrowski. 1995. Characterization of ascorbyl esters hydrolysis in fish. *Comp. Bioch. Physiol.* 110B:739-745.
152. Ciereszko, A., K. Dabrowski, L. Feng and S.I. Doroshov. 1994. Identification of trypsin-like activity in sturgeon spermatozoa. *J. Exp. Zool.* 268:486-491.
151. Mahan, D.C., A.J. Lepine and K. Dabrowski. 1994. Efficacy of magnesium-L-ascorbyl-2-phosphate for weanling and growing-finishing swine. *J. Animal Sci.* 72:2354-2361.

150. Dabrowski, K. 1994. Primitive Actinopterygian fishes are capable of ascorbic acid synthesis. *Experientia* 50:745-748.
149. Dabrowski, K. and A. Ciereszko. 1994. Proteinase inhibitors in seminal plasma of teleost fish. *J. Fish Biol.* 45:801-810.
148. Dabrowski, K. and J. Blom. 1994. Deposition of ascorbic acid in rainbow trout eggs and survival of embryos. *Comp. Biochem. Physiol.* 108A:129-135.
147. Ciereszko, A. and K. Dabrowski. 1994. Some biochemical constituents of fish semen: relationship between semen quality and fertility changes. *Fish Physiol. Bioch.* 12:357-367.
146. Matusiewicz, M., K. Dabrowski, L. Volker and K. Matusiewicz. 1994. Regulation of saturation and depletion of ascorbic acid in rainbow trout. *J. Nutritional Biochem.* 5:204-212.
145. Dabrowski, K., A. Ciereszko, L. Ramseyer, D. Culver and P. Kestemont. 1994. Effects of hormonal treatment on induced spermiation and ovulation of yellow perch (*Perca flavescens*). *Aquaculture* 120:171-180.
144. Dabrowski, K., M. Matusiewicz and J.H. Blom. 1994. Hydrolysis, absorption and bioavailability of ascorbic acid esters in fish. *Aquaculture* 124:169-192.
143. Ciereszko, A., L. Ramseyer and K. Dabrowski. 1993. Cryopreservation of yellow perch semen. *Progressive Fish Culturist* 55:261-264.
142. Dabrowski, K. and A. Ciereszko. 1993. Influence of fish size, origin and stress on ascorbic acid concentration in vital tissues of hatchery rainbow trout. *Progres. Fish Cult.* 55:109-113.
141. Dabrowski, K., R. Lackner and C. Doblander. 1993. Ascorbate-2-sulfate sulfohydrolase in fish and mammal. *Comp. Biochem. Physiol.* 104B (4):717-722.
140. Dabrowski, K. 1993. Ecophysiological adaptations exist in nutrient requirements of fish. True or false? A minireview. *Comp. Physiol. Biochem.* 104A:579-584
139. Ciereszko, A. and K. Dabrowski. 1993. Estimation of sperm concentration of rainbow trout, whitefish, and yellow perch using spectrophotometric technique. *Aquaculture* 109:367-373.
138. Dabrowski, K. 1992. Ascorbate concentration in fish ontogeny. *J. Fish. Biol.* 40:273-279.
137. Dabrowski, K., G. Krumschnabel, M. Pauku and J. Labanowski. 1992. Cyclic growth and activity of pancreatic enzymes of Arctic charr (*Salvelinus alpinus* L.) alevins. *J. Fish. Biol.* 40:511-521.
136. Dabrowski, K., D.A. Culver, C.L. Brooks, A.C. Voss, F.P. Binkowski and S.E. Yeo. 1992. Biochemical aspects of the early life history of yellow perch (*Perca flavescens*). In *Proceed. of Fish Feeding and Nutrition Symposium*, France. pp. 531-539.
135. Dabrowski, K., T. Yamazaki, S. Satoh and F. Takashima. 1992. Influence of delayed spawning time of Coregonus peled on the fatty acid composition of its tissues. Symposium on Biology and Management of Coregonid Fishes, T. Todd (ed.). *Pol. Arch. Hydrobiol.* 39:553-561.
134. Dabrowski, K. 1992. Comparative bioavailability of ascorbic acid and its stable forms in rainbow trout. In: *Ascorbic Acid in Animal Nutrition*, Proceedings of the 2nd Symposium in Zurich Ittingen, Switzerland. C. Wenk, R. Fenster and L. Volker (eds.) pp. 344-356.
133. Dabrowska, H., K. Dabrowski, K. Meyer-Burgdorff, W. Hanke and K.D. Gunther. 1991. The effect of large doses of magnesium and vitamin C on stress responses in common carp. *Comp. Biochem. Physiol.* 99:681-685.

132. Dabrowski, K. 1991. Some aspects of ascorbate metabolism in developing embryos of the brine shrimp (*Artemia salina*). *Can. J. Fish. Aquat. Sci.* 48:1905-1908.
131. Dabrowski, K. 1991. Administration of gulonolactone does not evoke ascorbic acid synthesis in teleost fish. *Fish Physiol. Biochem.* 9:215-221.
130. Dabrowski, K. 1991. Ascorbic acid status in high mountain charr, *Salvelinus alpinus*, in relation to the reproductive cycle. *Envir. Biol. Fishes.* 31:213-217.
129. Czczuga, B. K. Dabrowski, R. Rosch and A. Champigneulle. 1991. Carotenoids in fish 48. Carotenoids in *Coregonus lavaretus* L. individuals of various populations. *Acta Ichthyologica et Piscatoria* 21:3-16.
128. Dabrowski, K. 1990. Absorption of ascorbic acid and ascorbic sulfate and ascorbate metabolism in stomachless fish, common carp. *J. Comp. Physiol. B*, 160:549-561.
127. Dabrowski, K. and W. Wieser. 1990. Effects of species differences and dietary vitamin C on the concentration of ascorbate and acid-soluble thiol in fish eye. *Exp. Eye. Res.* 51:637-641.
126. Dabrowski, K., N. El-Fiky, G. Kock, M. Frigg and W. Wieser. 1990. Requirement and utilization of ascorbic acid and ascorbic sulfate in juvenile rainbow trout. *Aquaculture* 91:317-337.
125. Dabrowski, K., R. Lackner and C. Doblender. 1990. Effect of dietary ascorbate on concentration of tissue ascorbic acid, dehydroascorbic acid, ascorbic sulfate and ascorbic sulfate sulfohydrolase in rainbow trout. *Can. J. Fish. Aquat. Sci.* 47:1518-1525.
124. Dabrowska, H., and K. Dabrowski. 1990. The influence of the dietary magnesium on the minerals, ascorbic acid and glutathione concentrations in tissues of common carp. *Magnesium. Trace Elem.* 9:101-109.
123. Dabrowski, K. 1990. Assay of ascorbic phosphate and bioavailability of ascorbic mono- and polyphosphates. *J. Sci. Agric. Food Chem.* 5:409-420.
122. Dabrowski, K. 1990. Gulonolactone oxidase is missing in teleost fish - a direct spectrophotometric assay. *Biol. Chem. Hoppe-Seyler.* 371:207-214.
121. Dabrowski, K. 1990. Gastro-intestinal circulation of ascorbic acid. Mini review. *Comp. Bioch. Physiol.* 95A:481-486.
120. Dabrowski, K. 1990. Ascorbic acid status in the early life of whitefish (*Coregonus lavaretus* L.). *Aquaculture* 84:61-70.
119. Dabrowski, K. and G. Kock. 1989. Absorption and interaction with minerals of ascorbic acid and ascorbic sulfate in digestive tract of rainbow trout. *Can. J. Fish. Aquat. Sci.* 46:1952-1957.
118. Dabrowski, K., H. Segner, R. Dallinger, S. Hinterleitner, C. Sturmhuber and W. Wieser. 1989. Rearing of roach larvae; The vitamin C, minerals interrelationship and nutrition-related histology of the liver and intestine. *J. Animal Physiol. Animal Nutr.* 62:188-202.
117. Dabrowski, K. 1989. Formulation of a bioenergetic model for coregoninae early life history. *Trans. Am. Fish. Soc.* 118:138-150.
116. Dabrowski, K. and G. Köck. 1989. The effect of ascorbate on proteolytic enzyme activities in fish. *Intern. J. Vit. Nutr. Res.* 59:157-160.
115. Dabrowski, K., P. Poczyczynski, G. Köck and B. Berger. 1989. Effect of fish meal protein substitution by soybean protein in diet on growth, diet utilization and proteolytic enzymes activities in rainbow trout. In vivo test for exocrine pancreatic secretion. *Aquaculture* 77:29-49.

114. Dabrowski, K. and S. Hinterleitner. 1989. Simultaneous analysis of ascorbic acid, dehydroascorbic acid and ascorbic sulfate in biological material. *Analyst*. 114:83-87.
113. Dabrowski, K., F. Takashima and Y.K. Law. 1989. Bioenergetical model for the analysis of the ontogenetical aspects of coregonid fish growth. *Ecological Model*. 44:195-208.
112. Dabrowski, K., S. Hinterleitner, C. Sturmbauer, N. El-Fiky and W. Wieser. 1988. Do carp larvae require vitamin C? *Aquaculture* 72:295-306.
111. Dabrowski, K. and P. Poczyczynski. 1988. Mass rearing of coregonid larvae and juveniles on dry diet. *Aquaculture* 69:307-316.
110. Dabrowski, K. and P. Poczyczynski. 1988. Intensive rearing of common carp and grass carp exclusively on dry diets. *Aquaculture* 69:317-332.
109. Nagiec, M., C. Nagiec, K. Dabrowski and E. Murawska. 1988. Mass-marking of coregonid larvae and fry by tetracycline tagging of otoliths. *Aquaculture & Fish. Managem.* 19:171-178.
108. Dabrowski, K., F. Takashima and Y.K. Law. 1988. Bioenergetical model of planktivorous fish feeding, growth and metabolism. Theoretical optimum swimming speed in fish larva. *J. Fish. Biol.* 32:443-458.
107. Georgopoulou, U., K. Dabrowski, M.F. Sire and J.M. Vernier. 1988. Absorption of intact proteins by the intestinal epithelium of trout. Demonstration by luminescence enzyme immunoassay and cytochemistry. *Cell Tissue Res.* 251:145-152.
106. Dabrowski, K., M. Luczynski, B. Czeczuga and S. Falkowski. 1987. Relationship among the coregonid fish reproductive effort, carotenoid content in eggs and survival of embryos. *Arch. Hydrobiol. Monogr. Beitr. Suppl.* 79:29-48.
105. Dabrowski, K., S. Kaushik and B. Fauconneau. 1987. Rearing of sturgeon (*Acipenser baeri* Brandt) larvae. 3. Nitrogen and energy metabolism and amino acid absorption. *Aquaculture* 65:31-41.
104. Dabrowski, K., F. Takashima and C. Strüssmann. 1986. Does recovery growth occurs in larval fish? *Bull. Jap. Soc. Sci. Fish.* 51:1869.
103. Luczynski, M., P. Majkowski, R. Bardega and K. Dabrowski. 1986. Rearing of four Coregoninae larvae using dry and live food. *Aquaculture* 56:179-185.
102. Dabrowski, K. and K. Tsukamoto. 1986. Tetracycline tagging of coregonid fish embryos and larvae. *J. Fish Biol.* 29:691-698.
101. Dabrowski, K. 1986. Ontogenetical aspects of nutritional requirements in fish. *Comp. Biochem. Physiol.* 85A:639-655.
100. Fauconneau, B., P. Aquirre, K. Dabrowski and S. Kaushik. 1986. Rearing of sturgeon (*Acipenser baeri* Brandt). 2. Protein metabolism. Influence of fasting and diet quality. *Aquaculture* 51:117-131.
99. Dabrowski, K. and A. Champigneulle. 1986. Chemical composition of whitefish (Coregonidae) from Lake Lemman during spawning. In *Proceedings of V. Congr. Europ. Ichthyol.*, Stockholm, 1985. pp. 335-338.
98. Dabrowski, K., T. Murai and K. Becker. 1986. Physiological and nutritional aspects of intensive feeding of carp. In *Aquaculture of Carp*, R. Billard (ed.), I.N.R.A., Paris. pp. 55-70.
97. Dabrowski, K., F. Takashima, C. Strüssmann and T. Yamazaki. 1986. Rearing of coregonid larvae with live and dry food. *Bull. Jap. Soc. Fish.* 51:23-30.
96. Dabrowski, K., Y.K. Law and F. Takashima. 1986. How efficiently do fish larvae and juveniles swim? *Comp. Biochem. Physiol.* 85A:657-661.

95. Dabrowski, K. 1986. Energy utilization during swimming and cost of locomotion in larval and juvenile fish. *J. Appl. Ichthyol.* 3:110-117.
94. Dabrowski, K. and C. Leray. 1986. Changes in amino acid absorption in rainbow trout digestive tract as related to environmental salinity. *Zool. Jb. Physiol.* 90:429-439.
93. Dabrowski, K. 1986. Digestive and absorptive functions along the intestine of stomachless fish, common carp (*Cyprinus carpio* L.). *Reprod. Nutr. Develop.* 26:755-766.
92. Dabrowski, K. 1986. Active metabolism in juvenile fish: Ontogenetic changes, effect of water temperature and fasting. *Fish. Biochem. Physiol.* 1:125-144.
91. Dabrowski, K. and S. Kaushik. 1986. Developmental changes in the endogenous body stores utilization in sturgeon, *Acipenser baeri* Brandt (Chondrostei). *Zool. Anzeiger.* 216:367-380.
90. Dabrowski, K. and F. Schwartz. 1986. Mineral contents in the digestive tract of stomachless fish. *Zool. J. Physiol.* 90:193-200.
89. Vuorinen, J., A. Champigneulle, K. Dabrowski, R. Eckman and R. Rosch. 1986. Electrophoretic variation in central European coregonid populations. *Arch. Hydrobiol. Beih. Ergebn. Limnol.* 22:291-298.
88. Rosch, R. and K. Dabrowski. 1986. Tests of artificial food for larvae of *Coregonus lavaretus* from Lake Constanze. *Arch. Hydrobiol. Beih. Ergebn. Limnol.* 22:273-282.
87. Kaushik, S., K. Dabrowski and P. Bergot. 1986. Metabolic aspects of dry diet utilization by juvenile coregonids. *Arch. Hydrobiol. Beih. Ergebn. Limnol.* 22:161-169.
86. Dabrowski, K., S. Kaushik and P. Bergot. 1986. Active metabolism in young coregonids: A new approach involving oxygen consumption and ammonia excretion. *Arch. Hydrobiol. Beih. Ergebn. Limnol.* 22:151-159.
85. Dabrowski, K. and A. Champigneulle. 1986. Editors. Preface. Advances in Fishery Biology: Biology exploitation, rearing and propagation of coregonid fishes. *Arch. Hydrobiol. Beih. Ergebn. Limnol.* Stuttgart. 22, 386 pp.
84. Luczynski, M., K. Dabrowski and M. Hosaja. 1986. Hatching gland cells in Coregoninae embryos. *Zeit. Angew. Zool.* 1:63-73.
83. Dabrowski, K., C. Leray, G. Nonotte and D. Colin. 1986. Protein digestion and ion concentration in rainbow trout (*Salmo gairdneri* Rich.) digestive tract in sea- and fresh water. *Comp. Biochem. Physiol.* 83A:27-39.
82. Dabrowski, K. 1986. A new type of metabolic chamber for the determination of active and post prandial metabolism in fish. *J. Fish. Biol.* 28:105-117.
81. Nagiec, M., C. Nagiec, K. Dabrowski and E. Murawska. 1985. Marking of juvenile whitefish *Coregonus lavaretus* (L.) with tetracycline antibiotics. *Acta Ichthyol. et Piscat.* 13:47-57.
80. Dabrowski, K. and F. Schwartz. 1985. Rearing of coregonid (*Coregonus schinzi palea*) larvae using dry and live food. IV. Proximate and mineral composition of diets and fish. *Aquaculture* 48:303-311.
79. Dabrowski, K. and S. Kaushik. 1985. Rearing of coregonid (*Coregonus schinzi palea*) larvae using dry and live food. III. Growth of fish and the developmental characteristics related to nutrition. *Aquaculture* 48:123-135.
78. Dabrowski, K., S. Kaushik and B. Fauconneau. 1985. Rearing of sturgeon (*Acipenser baeri*) larvae. I. Feeding trial. *Aquaculture* 43:185-192.
77. Kaushik, S., K. Dabrowski and P. Luquet. 1985. Experimental studies on some trophic relationships in juvenile pike, *Esox lucius*. *J. Fish Biol.* 26:171-180.

76. Dabrowski, K. 1985. Energy budget of the coregonid (*Coregonus* spp.) fish growth, metabolism and reproduction. *Oikos*. 45:358-364.
75. Dabrowski, K. 1985. Can coregonid larvae feed under ice? *Archiv f. Hydrobiol.* 104:427-432.
74. Dabrowski, K., M. Rusiecki and M. Luczynski. 1985. Free amino acids in the late embryogenesis and prehatching state of two coregonid fishes. *Biochem. System. Ecol.* 13:349-356.
73. Dabrowski, K. 1984. The feeding of fish larvae. Present state of the art and perspectives. *Reprod. Nutr. Develop.* 24:807-833.
72. Dabrowski, K. and S. Kaushik. 1984. Rearing of coregonid larvae using dry and live food. II. Oxygen consumption and nitrogen excretion. *Aquaculture* 41:333-344.
71. Dabrowski, K., P. Bergot and S. Kaushik. 1984. Rearing of coregonid larvae using dry and live food. Preliminary data. *Aquaculture* 41:11-20.
70. Dabrowski, K. and M. Luczynski. 1984. Utilization of body stores in the embryonated ova and larvae of two coregonid fishes. *Comp. Biochem. Physiol.* 79A:329-334.
69. Dabrowski, K., E. Murawska, J. Terlecki and S. Wielgosz. 1984. Studies on the feeding of *Coregonus pollan* alevins and fry in Lough Neagh. *Int. Rev. ges. Hydrobiol.* 69:529-540.
68. Dabrowski, K. and D.H. Jewson. 1984. The influence of light environment on depth of visual feeding by fish larvae and fry in Lough Neagh. *J. Fish Biol.* 25:721-729.
67. Dabrowski, K. and R. Bardega. 1984. Mouth-size and recommendation of feed size preferences in three cyprinid fish. *Aquaculture* 40:41-46.
66. Dabrowski, K. 1984. Influence of initial weight during the change from live to compound feed on the survival and growth of four cyprinids. *Aquaculture* 40:27-40.
65. Dabrowski, K., S. Kaushik and P. Luquet. 1984. Metabolic utilization of body stores during early life of whitefish (*Coregonus lavaretus* L.). *J. Fish Biol.* 24:721-729.
64. Kaushik, S. and K. Dabrowski. 1983. Nitrogen and energy utilization in juvenile carp (*Cyprinus carpio*) fed casein, amino acid or protein-free diet. *Reprod. Nutr. Develop.* 23:741-754.
63. Dabrowski, K. 1983. Lysine requirement for common carp (*Cyprinus carpio* L.) fry. In. *Colloques de l'INRA, 4th Intern. Symp. Protein metabolism and nutrition*. Clermont-Ferrand, France. 16:473-476.
62. Czeczuga, B. and K. Dabrowski. 1983. Rapeseed meal in the diet of common carp reared in heated waters. V. Carotenoids in diets and fish tissues. *Zeit. Tierphysiol. Tierernähr. u. Futtermittelkde.* 50:52-61.
61. Dabrowski, K. 1983. Chemical and biochemical aspects in reproduction strategy of fish with particular attention to coregonids. *Zesz. Nauk ART Olszt.* 12 :137-155.
60. Dabrowski, K. 1983. Elevage des larves de coregones nourries à l'aliment sec et naturel. *Bull. Fr. Piscic.* 291:183-190.
59. Dabrowski, K., R. Bardega and R. Przedwojski. 1983. Dry diet formulation study with common carp larvae. *Zeit. Tierphysiol. Tierernähr. u. Futtermittelkde.* 50:40-52.
58. Kaushik, S. and K. Dabrowski. 1983. post-prandial nitrogen excretion in carp larvae and juveniles. *Repr. Nutr. Devel.* 23:223-234.



57. Kaushik, S., K. Dabrowski, H. Dabrowska, E. Olah and P. Luquet. 1983. Utilization of dietary urea in rainbow trout. *Ann. Nutr. Metabol.* 27:94-106.
56. Dabrowski, K. 1983. Comparative aspects of protein digestion and amino acid absorption in fish and other animals. *Comp. Biochem. Physiol.* 74A:417-425.
55. Dabrowski, K. 1983. Digestion of protein and amino acid absorption in stomachless fish (*Cyprinus carpio* L.). *Comp. Biochem. Physiol.* 74A:409-415.
54. Dabrowski, K. 1983. A note on the energy transformation in body and gonad of coregonid fish. *Arch. Hydrobiol.* 97:406-414.
53. Dabrowski, K. and M. Rusiecki. 1983. Protein bound and free amino acids in zooplankton constituting fish larvae diet. *Aquaculture* 30:31-42.
52. Kaushik, S., K. Dabrowski and P. Luquet. 1982. Patterns of nitrogen excretion and oxygen consumption during ontogenesis of carp (*Cyprinus carpio* L.). *Can. J. Aquat. Fish. Sci.* 39:1095-1105.
51. Dabrowski, K. 1982. The influence of light intensity on feeding of fish larvae and fry. II. *Rutilus rutilus* and *Perca fluviatilis*. *Zool. Jb. Physiol.* 86:353-360.
50. Dabrowski, K. 1982. The influence of light intensity on feeding of fish larvae and fry. I. *Coregonus pollan* and *Esox lucius*. *Zool. Jb. Physiol.* 86:341-351.
49. Dabrowski, K. and S. Kaushik. 1982. The concept of pyrimidine essentiality in fish. *Speculation in Sci. Technol.* 5:447-454.
48. Dabrowski, K. 1982. Postprandial level of free amino acids in fish brain. *Comp. Biochem. Physiol.* 72B:659-662.
47. Dabrowski, K. 1982. Post-prandial distribution of free amino acids between plasma and erythrocytes of common carp. *Comp. Biochem. Physiol.* 72A:753-763.
46. Dabrowski, K. 1982. Tilapia in lakes and aquaculture. Ecological and nutritional approach. *Acta Hydrochim. Hydrobiol.* 10:265-271.
45. Dabrowski, K. 1982. Further study on dry diet formulation for common carp larvae. *Riv. Ital. Piscic. Ittiop.* 17:11-29.
44. Dabrowski, K., R. Evans, J. Czarnocki and H. Kozłowska. 1982. Rapeseed meal in the diet for common carp. IV. Thyroid histology and <sup>125</sup>I accumulation. *Zeit. Tierphysiol. Tierernähr. u. Futtermittelkde.* 48:1-9.
43. Dabrowski, K. and R. Bardega. 1982. The changes of fish larvae dimensions due to fixation in different preservatives. *Zool. Jb. Anat.* 108:509-516.
42. Dabrowski, K. 1982. Proteolytic enzymes activity decline in starving fish larvae. *Env. Biol. Fish.* 7:73-76.
41. Dabrowski, K. 1982. Reproductive cycle of vendace (*Coregonus albula* L.) in relation to some chemical and biochemical changes in the body. *Hydrobiologia (Hagua)* 94:3-15.
40. Dabrowski, K. 1982. Seasonal changes in chemical composition of fish body and nutritional value of the muscle of the pollan (*Cyprinus pollan* Thompson) from Lough Neagh, Northern Ireland. *Hydrobiologia (Hagua)* 87:121-141.
39. Dabrowski, K., K. Krasnicki and H. Kozłowska. 1981. Rapeseed meal in the diet for common carp. III. Metal concentration in tissues. *Zeit. Tierphysiol. Tierernähr. u. Futtermittelkde* 45:273-283.

38. Dabrowski, K. 1981. The spawning and early life history of pollan (*Coregonus pollan*) in Lough Neagh, Northern Ireland. *Int. Rev. ges. Hydrobiol.* 66:299-326.
37. Stroband, H.W.J. and K. Dabrowski. 1981. Morphological and physiological aspects of the digestive system and feeding in freshwater fish larvae. In *Nutrition des Poissons*, C.N.E.R.N.A., Paris. pp. 353-376.
36. Dabrowski, K. 1981. Problems of fish nutrition in aquaculture. *Post. Nauk Roln.* 4:151-167.
35. Dabrowski, K. 1981. Tryptophan requirement of common carp fry. *Zeit. Tierphysiol. Tierernähr. u. Futtermittelkde* 45:64-71.
34. Dabrowski, K. and P. Luquet. 1981. Besoins alimentaires des poissons avec reference particuliere a la carpe commune. Addendum. In *La Pisciculture en Etang*, R. Billard (ed.), INRA, Paris. pp. 237-251.
33. Dabrowski, K., H. Dabrowska and H. Kozłowska. 1981. Rapeseed meal in the diet for common carp. II. Biochemical parameters as indices of dietary protein value. *Zeit. Tierphysiol. Tierernähr. u. Futtermittelkde* 45:66-76.
32. Dabrowski, K. and H. Kozłowska. 1981. Rapeseed meal in the diet for common carp. I. Growth of fish and utilization of the diet. In *Aquaculture in Heated Effluents and Recirculated Systems*, K. Tiews (ed.), Heenemann Verlag, Berlin. pp. 263-274.
31. Dabrowski, K. and H. Dabrowska. 1981. Digestion of protein and amino acid absorption in rainbow trout digestive tract. *Comp. Biochem. Physiol.* 69A:99-111.
30. Dabrowski, K., S. Hassard and T. Pitcher. 1980. Effect of *Geotrichum candidum* protein substitution in pelleted fish food on the growth of rainbow trout and utilization of the diet. *Aquaculture* 21:213-232.
29. Dabrowski, K., C. Grudniewski and H. Dabrowska. 1979. An attempt to cultivate the grass carp larvae and fry on artificial diets. *Rocz. Nauk Roln.* 99H3:91-104.
28. Dabrowska, H., C. Grudniewski and K. Dabrowski. 1979. Artificial diets for common carp larvae. Effect of the addition of enzymes extract. *Prog. Fish Cult.* 41:196-200.
27. Dabrowski, K. and B. Kozak. 1979. The use of fish meal and soyabean meal as protein source in the diet of grass carp fry. *Aquaculture* 16:107-114.
26. Dabrowski, K. 1979. Feeding requirement of fish with a particular attention to common carp. A review. *Pol. Arch. Hydrobiol.* 26:135-158.
25. Grudniewski, C., K. Dabrowski and H. Dabrowska. 1979. A study on the feeding of common carp larvae with artificial food. *Rocz. Nauk Roln.* 99H3:105-123.
24. Dabrowski, K. 1979. Respiration and energy transformation in common carp fed on the different diets. *Rocz. Nauk Roln.* 99H3:79-89.
23. Dabrowski, K. 1979. Problems in determination of nitrogen compounds when applied to fish feeding experiments. In *Finfish nutrition and Fishfeed Technology*, J.E. Halver and K. Tiews (eds.), Vol. 2, Heenemann Verlag, Berlin. pp. 519-529.
22. Dabrowski, K. 1979. The role of proteolytic enzymes in fish digestion. In *Cultivation of Fish Fry and its Live Food*, E. Styczynska-Jurewicz, T. Backiel, E. Jaspers and G. Persoone (eds.). Eur. Maricult. Soc., Bredene, Belgium. Special Publ. 4:107-126.
21. Dabrowski, K. and T. Wojno. 1978. Studies on the utilization of non-protein nitrogen compounds in common carp nutrition. IV. Physiological indices. *Zesz. Nauk ART Olszt.* 7:133-146.

20. Dabrowski, K. and T. Wojno. 1978. Studies on the utilization of non-protein nitrogen compounds in common carp nutrition. III. Chemical composition of fish body. *Zesz. Nauk ART Olszt.* 7:121-131.
19. Dabrowski, K. and T. Wojno. 1978. Studies on the utilization of non-protein nitrogen compounds in common carp nutrition. II. Digestibility of nutrients, feed protein utilization indices, absorption of amino acids. *Zesz. Nauk ART Olszt.* 7:101-120.
18. Dabrowski, K. and T. Wojno. 1978. Studies on the utilization of non-protein nitrogen compounds in common carp nutrition. I. Feed characteristics, fish growth and feed utilization. *Zesz. Nauk ART Olszt.* 7:83-100.
17. Dabrowski, K. and K. Szpilewski. 1978. Studies on the roach (*Rutilus rutilus* L.) infected by *Ligula intestinalis* L. *Acta Parasitol. Pol.* 27:37-44.
16. Dabrowski, K. 1978. Amino acid content in *Ligula intestinalis* L. (Ceatoda) pleurocereoids and the effect on host biochemical composition. *Acta Parasitol. Pol.* 27:45-48.
15. Dabrowski, K., C. Grudniewski and H. Dabrowska. 1978. A study of the feeding of common carp larvae with artificial food. *Aquaculture* 13:257-264.
14. Dabrowski, K. 1978. The density and chemical composition of fish muscle. *Experientia* 10:1263-1265.
13. Sroczyński, S., K. Dabrowski and E. Murawska. 1977. Application of spectrophotometric method to the estimation of the density and biomass of zooplankton. *Arch. f. Hydrobiol.* 79:533-536.
12. Dabrowski, K. and J. Glogowski. 1977. A study on the application of proteolytic enzymes to fish food. *Aquaculture* 12:349-360.
11. Dabrowski, K. and J. Glogowski. 1977. The role of exogenic proteolytic enzymes in digestion processes in fish. *Hydrobiologia* (Hagua) 54:129-134.
10. Dabrowski, K. and J. Glogowski. 1977. Studies on the proteolytic enzymes of invertebrates constituting fish food. *Hydrobiologia* (Hagua) 52:171-174.
9. Dabrowski, K. 1977. Protein requirements of grass carp (*Ctenopharyngodon idella* Val.). *Aquaculture* 12:63-73.
8. Dabrowski, K. 1977. The content of ascorbic acid in organs of silver bream (*Vimba vimba* L.). *Pol. Arch. Hydrobiol.* 24:569-573.
7. Dabrowski, K. 1976. The effect of arsenic on embryonal development of rainbow trout (*Salmo gairdneri*). *Water Res.* 10:793-796.
6. Dabrowski, K. 1976. How to calculate the optimal time and food density for fish larvae. *Env. Fish Biol.* 1:87-89.
5. Dabrowski, K. 1976. An attempt to determine the survival time for starving fish larvae. *Aquaculture* 8:189-193.
4. Dabrowski, K. and J. Czarnocki. 1975. Accumulation and distribution of <sup>59</sup>Fe in common carp (*Cyprinus carpio* L.). *Zool. Polon.* 25:111-117.
3. Dabrowski, K., S. Tucholski and J. Czarnocki. 1975. The effect of radioactive iron on the embryogeny of seatrout (*Salmo trutta* L.). *Pol. Arch. Hydrobiol.* 22:577-592.
2. Dabrowski, K. 1975. Point of no return in the early life of fishes. An energetical attempt to define the food minimum. *Wiad. Ekol.* 21:277-283.
1. Dabrowski, K. 1975. The effect of ionizing radiation and radionuclides on the embryonal development of fish. *Wiad. Ekol.* 21:123-132.

## Popular Articles

29. Dabrowski, K. and Jaroszevska, M. 2007. Ekologiczna tragedia Jezioro Titikaka (Ecological disaster of Lake Titicaca, Peru). [In Polish]. *Komunikaty Rybackie* 6: 16-20.
28. Jaroszevska, M and Dabrowski, K. 2006. Konferencja na temat ryb z rodziny Lepisosteidae w Meksyku (Conference on Lepisosteidae fishes in Mexico). [In Polish] *Komunikaty Rybackie* 5: 28-30.
27. Dabrowski, K. 2005. Professor John Halver z wizytą w Polsce. *Komunikaty Ryb.*, 1: 19-20.
26. Dabrowski, K., K-J. Lee, and J. Rinchar. 2003. Utilization of cottonseed meal for salmonid feeds. *Aqua Feed Internat.* 6:16-18.
25. Dąbrowski, K. 1990. 1. Funkcja i zapotrzebowanie kwasu askorbinowego (witaminy C) dla ryb. *Gosp. Ryb.* 42 nr 4-6: 9-10.
24. Poczyczyński, P. and K. Dąbrowski. 1990. Efekty podchowu pstrąga tęczowego na paszach wysokotłuszczowych o różnym stopniu substytucji mączki rybnej mączki sojowej. *Gosp. Ryb.* 42 (1-3): 10-11.
23. Łuczyński, M., K. Dąbrowski, B. Czeczuga and S. Falkowski. 1987. Zmienność przeżywalności jaj sielawy z jeziora Kolno. *Gosp. Ryb.* 39 (10): 9-11.
22. Dąbrowski, K. and P. Poczyczyński. 1987. Podchów karpia i amura białego na paszach sztucznych. *Gosp. Ryb.* 39 (9): 8-10.
21. Dąbrowski, K., P. Poczyczyński and Z. Ludwig. 1987. Podchów sieci żywionej wyłącznie paszami sztucznymi. *Gosp. Ryb.* 39 (7/8) 6-9.
19. Dąbrowski, K. 1987. i inni. Porównanie starterów pstragowych firmy EWOS i pasz doświadczalnych krajowych pod względem ich efektywności pokarmowej oraz wzrostu i przeżywalności ryb. *Gosp. Ryb.* 39 (6) 7-9.
18. Dąbrowski, K. 1987. Nowe tendencje w formułowaniu receptur pasz dla ryb łososiowatych. *Gosp. Ryb.* 39 (4): 5-9.
17. Dąbrowski, K. 1987. Udomowienie głąbieli w Japonii. *Gosp. Ryb.* 39 (2): 18-19.
16. Łuczyński, M., P. Majkowski, R. Bardega and K. Dąbrowski. 1986. Udany podchów wylegu golbieli na paszy granulowanej. *Gosp. Ryb.* 38 (9): 5-6.
15. Dąbrowski, K. 1985. Żywnienie ryb - symposium w Aberdeen. *Gosp. Ryb.* 37 (10) 16-18.
14. Dąbrowski, K. 1983. Wrażenia z pobytu naukowego w Holandii i Republice Federalnej Niemiec. *Gosp. Ryb.* 35 (8): 20-22.
13. Dąbrowski, K. 1982. Laboratorium żywienia Ryb w Narodowym Instytucie Rolniczym we Francji. *Gosp. Ryb.* 34 (8): 20-22.
12. Dąbrowski, K. 1980. Badania nad żywieniem ryb na Uniwersytecie Aston w Birmingham. *Gosp. Ryb.* 32 (5): 13-14.
11. Dąbrowski, K. 1978. Laboratorium eko-fizjologii zwierząt Uniwersytetu w Tuluzie. *Gosp. Ryb.* 30 (9): 20-21.
10. Dąbrowski, K., H. Dąbrowska and A. Martyniak. 1978. Skład chemiczny i wartość odżywcza mięśni kilku gatunków ryb karpioiwatych. *Gosp. Ryb.* 30 nr 1 s. 17-18.
9. Dąbrowski, K. 1977. Określenie zawartości aminokwasów egzogennych w paszach wysokobiałkowych dla ryb. *Gosp. Ryb.* 29 (10) 16-17.

8. Dąbrowski, K. and K. Szpilewski. 1977. Oddychanie wylęgu ryb. *Gosp. Ryb.* 29 (2): 29-21.
7. Dąbrowski, K. 1976. Znaczenie kwasu L-askorbinowego w życiu ryb. *Gosp. Ryb.* 28 (11) 11-13.
6. Dąbrowski, K. and S. Tucholski. 1976. Znaczenie żelaza w rozwoju embrionalnym ryb. *Gosp. Ryb.* 28 (8): 10-11.
5. Dąbrowski, K. 1974. Wyniki ekonomiczne wczesnego obsadzania stawów wylęgiem karpia. *Gosp. Ryb.* 26 (4): 18.
4. Dąbrowski, K. 1974. Wpływ warunków klimatycznych w Polsce na produkcji narybku karpia. *Gosp. Ryb.* 26 (3): 12-13.
3. Dąbrowski, K. 1974. Wpływ terminu tarła na produkcji narybku karpia. *Gosp. Ryb.* 26 (2): 19-20.
2. Dąbrowski, K. 1972. Urządzenia do odłowu ryb z magazynów. *Gosp. Ryb.* 24 (12): 19.
1. Dąbrowski, K. 1972. Zastosowanie podgrzewacza typu inspektowego na tarliskach karpia. *Gosp. Ryb.* 24 nr 4 s. 8-9.

## **Funded Projects**

- 2024-2025 Farmed fish fillet as a functional food: Technology for enhanced fish diets to create value-added fish products (Barringer, S., Deng, D.F., Co-PI). USDA – NIFA North Central Regional Aquaculture Centers, \$209,144.
- 2023-2025 Atlantic Salmon biotechnology and conservation biodiversity – one species, one focus, one product – immense opportunity (Wick, M., Quintero, H. Co-PI). OSU CFAES IGP – Immediate Needs Program \$55,000.
- 2023-2025 Increasing potential of the Yellow Perch industry using new larvae culture technology and enhancing marketability in the Great Lakes region (Barringer, S., Carlton, S., Wright, N., Co-PI). USDA- NIFA Special Research Grants for Aquaculture Research, \$299,975.
- 2010-2012 Meteorological effects on yellow perch reproduction and recruitment in Lake Erie. Ohio Division of Wildlife, Ohio Department of natural Resources (Ludsin, S. Co-PI), \$47,947.
- 2010-2012 Dietary efficiency for growth of novel methionine derivatives compared to DL-methionine. Evonik-Degussa, \$50,000
- 2009-2012 Human health impacts of aquaculture. Aquaculture of novel species in Mexico, chame (Maria Haws, Co-PI), University of Hawaii, Aqua-Fish CRSP, USAID, \$118,000.
- 2009-2012 Preventing mercury toxicity by thiamine in yellow perch. Lake Erie Protection Fund, \$15,000.
- 2005-2006 Broodstock development and larval feeding of Amazonian fishes. US AID, CRSP, Oregon State University, \$47,947.
- 2005-2006 Use of phytochemicals as a new method to sex reverse Nile tilapia and tropical garfish. US AID, CRSP, Oregon State University, \$54,718.
- 2004-2006 New concept of nitrogenous substance assimilation in fishes-mechanisms of *in vivo* utilization of peptides. Polish Academy of Sciences, KBN, \$40,000.
- 2003-2006 Quantifying how parental attributes influence characteristics of early life history stages of Ohio stocks of Lake Erie walleye (*Stizostedion*). Ohio Division of Wildlife, ODNR, \$85,000.

- 2003-2006 Effects of exotic species and human impacts on essential fatty acids availability in the Lake Michigan food web. Great Lakes Fishing Trust, \$70,000.
- 2003-2005 Sex differentiation in sea lamprey. Great Lakes Fishery Commission, Ann Arbor, MI, \$48,000.
- 2003-2004 Understanding variabilities in lamprey gametes quality in relation to nutrients availability in host fish. Great Lakes Fishery Commission, Ann Arbor, \$14,188.
- 2002-2004 Sterility assessment in sea lamprey. Great Lakes Fishery Commission, Ann Arbor, MI \$147,545.
- 2002-2004 Phytochemicals and mechanisms that influence growth and nutrient utilization in rainbow trout. USDA, NRI, \$122,835.
- 2002-2004 Bring back the natives, conservation of lake sturgeon in Lake Erie. Fish and Wildlife Service and OARDC, \$50,000.
- 2002-2004 Utilization of soy products in salmonid fish diets-saponins. Aquasoy Research Program, National Soybean Board, \$120,000.
- 2002-2003 Production of triploid saugeye. Ohio Division of Wildlife, ODNR, Columbus, Ohio, \$49,806.
- 2001-2004 Use of phytochemicals as an environmentally friendly method to sex-reverse Nile tilapia. CRSP Oregon State University, AID Washington, \$81,000.
- 2001-2004 Improving reproduction and larval rearing of Amazonian fishes. CRSP Oregon State University, AID Washington, \$79,000.
- 2001-2003 Viability of the progenies of lake sturgeon, Lake Erie most-endangered fish. Lake Erie Protection Fund, \$9,054.
- 2000-2003 Production of all-female triploid yellow perch for commercial aquaculture. Ohio Agriculture Research and Development Center, \$25,000.
- 2000-2002 Studies on the role of sperm-activating proteins and mechanism of protease-inhibitor(s) reaction for controlling fertilization in lamprey. Great Lakes Fishery Commission, \$29,374.
- 1998-2002 Studies on reproductive functions of male sea lamprey in relation to potential targets for population control. Great Lakes Fisheries Commission, Ann Arbor, MI \$280,029.
- 1999-2002 Advancement of hybrid walleye aquaculture. USDA North Central Regional Aquaculture Center, \$29,000.
- 1999-2001 Changes in plasma levels of free and conjugate 17,20 $\alpha$ -dihydroxy-4-pregnew-3-one during fial maturation of yellow perch. Lake Erie Protection Fund, \$7,414.
- 1999-2000 All-female triploid production of saugeye. Ohio Department of Natural Resources, Division of Wildlife, \$52,347.
- 1998-2002 Studies on controlled reproduction of Amazonian fish, *Colossoma* and *Piaractus* sp. AID, \$29,500.
- 1998-2001 Biotechnology of microencapsulation as a delivery system of nutrients and macro-molecules for fresh water and marine fish larvae. Ohio Agricultural Research and Development Center, \$50,000.
- 1998-2000 Application of microcapsules for delivery of specific substances of importance into the body of larval fish. Collaborative project with M. Yufera, Institute of Marine Science, Cadiz, Spain. Binational U.S.-Spain, \$25,000.
- 1998-2000 Fish genetic resources bank - biodiversity and superior fish in aquaculture. Ohio Sea Grant College Program, \$57,623.

- 1998-2000 Application of new biotechnology of microencapsulation. Ohio Sea Grant College Program, \$59,046.
- 1997-2000 Improving salmonid aquaculture in the north central region. USDA North Central Regional Aquaculture Center, \$40,000.
- 1997-2000 Control of an aquatic pest, zebra mussel, with methods of male contraception. USDA, Foreign Service Award, \$30,000.
- 1997-1998 Comparison of the efficacy of tocopherol monophosphate and acetate in lake sturgeon diets. Showa Denko America, Inc., \$20,000.
- 1997-1999 Replacing fish protein in fish diets. Utilization of cottonseed in grow-out phase and effects on reproduction. Cottonseed Producers Association, \$46,000.
- 1997-1999 All -female and triploid saugeye. Ohio Department of Natural Resources, Columbus, OH, \$153,903.
- 1997-1999 Evaluation of sex-reversed gynogenetic muskellunge (*Esox masquinongy*). Ohio Department of Natural Resources, Columbus, OH, \$20,400.
- 1997-1999 Control of an aquatic pest, zebra mussel, with methods of male contraception. USDA, Office of International Cooperation, \$30,000.
- 1997-1999 Improving salmonid aquaculture in the North Central Region. USDA, NCRAC, \$40,000.
- 1996-1998 Extending the seasonal availability of walleye juveniles through environmental-hormonal treatment of broodstock. Ohio Sea Grant College Program, \$75,549.
- 1996-1998 Regulation of function in spermatozoa of the sea lamprey - the first step to contraception. Great Lakes Fishery Commission, \$71,733.
- 1996-1998 Tilapia aquaculture in the North Central region. North Central Regional Aquaculture Center, USDA, \$16,000.
- 1996-1998 Induced spermiation and characterization of spermatozoa of the sea lamprey. LakeErie Protection Fund, \$4,950.
- 1996-1998 Domestication of lake whitefish. Production of broodstock and assessment of gamete quality. U.S. Department of Commerce, NOAA, \$113,466.
- 1996-1998 Development of larval feeds for freshwater fish. U.S. - Israel Binational Agricultural Research and Development Fund. \$47,000.
- 1997-1999 Yellow perch aquaculture, North Central Regional Aquaculture Center, USDA, \$18,000.
- 1994-1996 Survive or perish! Does ascorbic acid influence performance of salmonids after release? National Science Foundation, \$24,540.
- 1994-1997 Culture technology of salmonids. North Central Regional Aquaculture Center, USDA, \$70,000.
- 1995-1996 Development of a non-mamalian model for nutrient (vitamin C) preventative action in radiation induced germ-cell mutagenesis. Showa Denko America, Co., New York, \$20,000.
- 1994-1996 Effects of ontogenesis and environmental factors on testicular function in yellow perch. EPA, Cincinnati, \$46,720.

- 1993-1995 Effect of temperature/light regimes manipulation on out-of-season spawning of yellow perch. NOAA, Ohio Sea Grant, \$4,855.
- 1993-1996 Role of vitamin C in performance of salmonid stocking material. NOAA, Ohio Sea Grant Program, \$20,000
- 1993-1996 Culture technology of hybrid striped bass. USDA, North Central Agriculture Center, Michigan State University, \$16,000.
- 1994 Physiological status of sturgeon fingerlings produced for conservation purposes. National Science Foundation, NATO-East Europe Coop. Program, \$4,280.
- 1993-1994 Bioavailability of Ca- and K-salts of ascorbyl phosphate as a vitamin C source for rainbow trout. BASF, Germany, \$50,000.
- 1992-1994 Zebra mussel - fish relationship and their effect on nutrient/energy and contaminant dynamics. U.S. EPA, Duluth, \$98,345.
- 1991-1993 Replacing fish meal protein in fish diets. Utilization of animal-by-products. Fats and Proteins Res. Foundation, Ft. Myers, FL, \$26,000.
- 1992-1994 Biomanipulation as a tool reversing eutrophication. Central European University Support, Soros Foundation, \$12,000.
- 1992-1993 Ascorbic acid deficiency in exhibit fishes. Columbus Zoo, OH, \$10,000.
- 1992-1994 Domestication of lake whitefish. Protein and amino acid requirements. U.S. Dept. of Commerce, NOAA, \$98,800.
- 1992-1995 Sex differentiation and use of hormones and gynogenesis to control sex in muskellunge. Ohio Dept. of Natural Resources. \$70,000.
- 1990-1995 Yellow perch aquaculture. North Central Aquaculture Research Center, U.S. Dept. of Agriculture. \$43,500.
- 1992-1994 Ascorbic acid in male reproduction: Fish as a biomodel in semen quality studies. U.S. Dept. of Agriculture. \$118,000.
- 1992-1994 Controlled reproduction of channel catfish. Government of Egypt, \$8,500
- 1991-1994 Restoration ecology of two percid fishes in Poland and U.S.A. Agency for International Development, Washington, DC. \$150,000.
- 1990-1994 Utilization of ascorbic phosphate in fish. Showa Denko, New York, U.S. \$46,000.
- 1989-1994 Ascorbic acid recommended allowance for salmonid fish. Hoffman La Roche, Nutley, U.S. \$105,000.
- 1990-1994 Acipenserid fish aquaculture in the U.S. and France. U.S. Department of Agriculture, Collab. Res. Program. \$60,000. With S. Kaushik.
- 1990-1993 Development of culture techniques for yellow perch in Ohio. Ohio Sea Grant Program. \$70,000. With D. Culver.
- 1992-1993 Advisor for The Ohio State University Postdoctoral Fellow, Dr. A. Ciereszko, Office of Research \$24,000.
- 1987-1988 Metabolism of vitamin C in cyprinid fish. National Research Council, Vienna, Austria. \$10,000.
- 1987-1988 Ascorbic acid requirements in fish. Hoffmann-La Roche, Basel, Switzerland. \$40,000.



1987-1988 Starter diets for cyprinid, coregonid and charr larvae. Finnish Sugar Co., Helsinki, Finland. \$10,000.

1985-1987 Mass rearing methods and physiology of early stages of coregonid fish. Polish Science Foundation. Coordinated by Agriculture University Wroclaw.

1985-1987 Starter diets for cyprinid fish. Polish Science Foundation. Coordinated by Agriculture University Bydgoszcz.