

Prof. Dr. rer.nat. Ulfert Focken

Publications and Conference Contributions

Peer-Reviewed Journals

- Becker K, Meyer-Burgdorff K, Focken U, 1992: Temperature induced metabolic costs in carp, *Cyprinus carpio* L., during warm and cold acclimatization.
Journal of Applied Ichthyology 8:10-20
- Focken U, Becker K, Lawrence P (1997): A note on the effects of L-Carnitine on the energy metabolism of individually reared carp *Cyprinus carpio* L.
Aquaculture Nutrition 3:261-264
- Schreiber S, Focken U, Becker K (1998): Individually reared female Nile tilapia (*Oreochromis niloticus*) can grow faster than males.
Journal of Applied Ichthyology 14:43-47
- Focken U, Becker K (1998): Metabolic fractionation of stable carbon isotopes: Implications for studies of the aquatic food web using $\delta^{13}\text{C}$ data.
Oecologia 115:337-343
- Focken U, Groth A, Coloso RM, Becker K (1998): Contribution of natural food and supplemental feed to the growth of shrimp *Penaeus monodon* FABRICIUS in grow-out ponds: Analysis of gut content.
Aquaculture 164:105-116
- Richter H, Focken U, Becker K, Santiago CB, Afuang WB (1999): Analysing the diel feeding patterns and daily rations of Nile Tilapia *Oreochromis niloticus* (L.), in Laguna de Bay, Philippines.
Journal of Applied Ichthyology 15:165-170
- Richter H, Focken U, Becker K (1999): A review of the fish feeding model MAXIMS.
Ecological Modelling 120:47-64
- Kock M, Focken U, Richter H, Becker K, Santiago C (2000): Feeding ecology of silver perch (*Terapon plumbeus*) and the impact of fish pens in Laguna de Bay, Philippines.
Journal of Applied Ichthyology 16:240-246
- Richter H, Lückstädt C, Focken U, Becker K (2000): An improved procedure to assess fish condition on the basis of length-weight relationships.
Archive of Fishery and Marine Research 48:255-264

- Hossain A, Focken U, Becker K (2001): Evaluation of an unconventional legume seed, *Sesbania aculeata*, as dietary protein source for common carp, *Cyprinus carpio* L..
Aquaculture 198:129-140
- Hossain MA, Focken U, Becker K (2001): Effect of soaking and soaking followed by autoclaving of *Sesbania* seeds on growth and feed utilization in common carp, *Cyprinus carpio* L..
Aquaculture 203:133-148
- Focken U (2001): Stable isotopes in animal ecology: The effect of ration size on the trophic shift of C and N isotopes between feed and carcass.
Isotopes in Environmental and Health Studies 37(3):199-211
- Hossain MA, Focken U, Becker K (2001): Galactomannan-rich endosperm of *Sesbania* (*Sesbania aculeata*) seed is responsible for retardation in growth and feed utilization in common carp, *Cyprinus carpio* L..
Aquaculture 203:121-132
- Hossain MA, Focken U, Becker K (2001): The effect of purified alcohol extract from *Sesbania* seed on the growth and feed utilization in common carp, *Cyprinus carpio* L..
Journal of Aquaculture in the Tropics 15:399-410
- Richter H, Lückstädt C, Schlechtriem C, Focken U, Becker K (2002): Evidence of violation of a basic assumption in models currently used for food consumption estimation in fish.
Archives of Fisheries and Marine Research 49:171-188
- Hossain MA, Focken U, Becker K (2002): Nutritional evaluation of dhaincha, *Sesbania aculeata*, seeds as dietary source for tilapia, *Oreochromis niloticus* L..
Aquaculture Research 33:653-662
- Cuvin-Aralar ML, Fastner J, Focken U, Becker K, Aralar EV (2002): Microcystins in Natural Blooms and Laboratory Cultured *Microcystis aeruginosa* from Laguna de Bay, Philippines.
Systematic and Applied Microbiology 25:179-182
- Ricci M, Fifi AP, Ragni A, Schlechtriem C, Focken U (2003): Development of a low energetic input technology for mass production of the free-living nematode *Panagrellus redivivus* as an alternative live food for first feeding fish larvae.
Journal of Applied Microbiology and Biotechnology 60:556-559
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2003): Feeding level and diet quality influence trophic shift of C and N isotopes in Nile tilapia (*Oreochromis niloticus*).
Isotopes in Environmental and Health Studies 39(2):125-134

- Schlechtriem C, Focken U, Becker K (2003): Effect of different lipid extraction methods on $\delta^{13}\text{C}$ of lipid and lipid-free fractions of fish and different fish feeds. *Isotopes in Environmental and Health Studies* 39(2):135-140
- Hossain MA, Focken U, Becker K (2003): Antinutritive effects of galactomannan-rich endosperm of *Sesbania* (*Sesbania aculeata*) seeds on growth and feed utilisation in tilapia (*Oreochromis niloticus*). *Aquaculture Research* 34(13):1171-1179
- Richter H, Lückstädt C, Focken U, Becker K (2003): Evacuation of pelleted feed and the suitability of Titanium(IV) oxide as a feed marker for gut kinetics in Nile tilapia. *Journal of Fish Biology* 63(5):1080-1099
- Richter H, Lückstädt C, Focken U, Becker K (2004): Some mathematical considerations in estimating daily ration in fish using food consumption models. *Ecological Modelling* 171:381-393
- Gaye-Siessegger J, Focken U, Muetzel S, Abel HJ, Becker K (2004): Feeding level and individual metabolic rate influence $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ in carp. *Oecologia* 138:175-183
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2004): Individual protein balance strongly influences $\delta^{15}\text{N}$ and $\delta^{13}\text{C}$ values in Nile Tilapia, *Oreochromis niloticus*. *Naturwissenschaften* 91(2):90-93
- Schlechtriem C, Focken U, Becker K (2004): Stable isotopes as a tool for nutrient assimilation studies on larval fish feeding on live food. *Aquatic Ecology* 38:93-100
- Schlechtriem C, Focken U, Becker K (2004): The suitability of the free-living nematode *Panagrellus redivivus* as live food for first feeding fish larvae. *Journal of Applied Ichthyology* 20(3):161-168
- Schlechtriem C, Ricci M, Focken U, Becker K (2004): Mass produced nematodes *Panagrellus redivivus* as live food for rearing carp larvae: Preliminary results. *Aquaculture Research* 35(6):547-551
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2004): Dietary lipid content influences the activity of lipogenic enzymes in the liver and on the whole body $\delta^{13}\text{C}$ values of Nile tilapia, *Oreochromis niloticus* (L.). *Isotopes in Environmental and Health Studies* 40(3):181-190

- Cuvin-Aralar ML, Focken U, Becker K, Aralar E (2004): Effect of low nitrogen-phosphorus ratios in the phytoplankton community in Laguna de Bay, a shallow eutrophic lake in the Philippines:
Aquatic Ecology 38:387-401
- Lückstädt C, Schill R, Focken U, Köhler HR, Becker K (2004): Stress protein Hsp 70 response of Nile tilapia *Oreochromis niloticus* (Linnaeus, 1758) to induced hypoxia and recovery
Verhandlungen der Gesellschaft für Ichthyologie 4:137-141
- Focken U (2004): Feeding diets with different ratios of C₃-plant and C₄-plant derived ingredients to fish: A test under laboratory conditions for the back-calculation of the diet of animals from stable isotope data
Rapid Communications in Mass Spectrometry 18(18):2087-2092
- Schlechtriem C, Focken U, Becker K (2005): Digestion and assimilation of the free-living nematode *Panagrellus redivivus* fed to first feeding coregonid larvae
Journal of the World Aquaculture Society 31(1):24-31
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2005): Improving estimates of trophic shift in Nile tilapia, *Oreochromis niloticus* (L.) using measurements of lipogenic enzyme activities in the liver
Comparative Biochemistry and Physiology Part A, 140:117-124
- Focken U, Schlechtriem C, Wuthenau MV, Garcia Ortega A, Puello-Cruz A, Becker K (2006): *Panagrellus redivivus* mass produced on solid media as live food for *Litopenaeus vannamei* larvae.
Aquaculture Research 37:1429-1436
- Gaye-Siessegger J, Focken U, Becker K (2006): Effect of dietary protein/carbohydrate ratio on activities of hepatic enzymes involved in the amino acid metabolism of Nile tilapia, *Oreochromis niloticus* (L.)
Fish Physiology and Biochemistry 32:275-282
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2007): Influence of dietary non-essential amino acid profile on growth performance and amino acid metabolism of Nile tilapia, *Oreochromis niloticus* (L.)
Comparative Biochemistry and Physiology Part A 146: 71-77
- Mamun SM, Focken U, Becker K (2007): Comparative digestion efficiencies in conventional, genetically improved (GIFT) and genetically male (GMNT) Nile tilapia, *Oreochromis niloticus* (L.)
Aquaculture Research 38(4):381-387
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2007): Dietary back-calculation using stable isotopes: Can activities of enzymes involved in amino acid metabolism be used to improve estimates of trophic shift in fish?
Isotopes in Environmental and Health Studies 43(2):129-141

- Focken U (2007): Effect of different ratios of wheat to corn flour in the diet on the development and isotopic composition ($\delta^{13}\text{C}$, $\delta^{15}\text{N}$) of the red flour beetle *Tribolium castaneum*
Isotopes in Environmental and Health Studies 43(2):143-154
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2007): Starvation and low feeding levels result in an enrichment of ^{13}C in lipids and ^{15}N in protein of Nile tilapia, *Oreochromis niloticus* (L.)
Journal of Fish Biology 71(1):90-100
- Sautter J, Kaiser H, Focken U, Becker K(2007): *Panagrellus redivivus* (Linne) as a live food organism in the early rearing of the catfish *Synodontis petricola* (Matthes).
Aquaculture Research 38(6):653-659
- Mamun SM, Focken U, Becker K (2007): Comparison of metabolic rates and feed nutrient digestibility in conventional, genetically improved (GIFT) and genetically male (GMNT) Nile tilapia, *Oreochromis niloticus* (L.)
Comparative Biochemistry and Physiology Part A 148 (1 Spec. Iss.):214-222
- Richter H, Focken U, Becker K (2008): A new modelling approach to estimate daily food consumption from gut content data in particle-feeding fish: concept and first test.
Journal of Applied Ichthyology 24(1):38-43
- Golan M, Avitan A, Qutob M, Dweik H, Abulafi S, Focken U, Francis G, Becker K, Kerem Z, Levavi-Sivan B (2008): Quillaja saponins inhibit tilapia aromatase activity *in vitro*.
CYBIUM, International Journal of Ichthyology 32(2) Suppl. 80-82
- McCullagh JSO, Gaye-Siessegger J, Focken U (2008): Direct determination of $\delta^{13}\text{C}$ of individual amino acids by LC-IRMS in nutritional studies: First data on the effect of dietary non-essential amino acid profile on the isotopic signature of individual amino acids in fish.
Rapid Communications in Mass Spectrometry 22:1817-1822
- Kuhlmann KJ, Focken U, Coloso RM, Becker K (2009): Diurnal feeding pattern and gut content of milkfish, *Chanos chanos* (Forsskal), cultured semiintensively during the wet and dry season in brackish ponds in the Philippines
Aquaculture Research 40(1):2-12
- Dongmeza E, Steinbronn S, Francis G, Focken U, Becker K (2009): Investigations on the nutrient and antinutrient content of typical plants used as fish feed in small scale aquaculture in mountainous Northern Vietnam
Animal Feed Science & Technology 149(1-2):162-178

Martínez-Montaña E, Peña, E., Focken U, Viana MT (2009) Intestinal absorption of amino acids in the Pacific bluefin tuna (*Thunnus orientalis*): In vitro uptake of amino acids using hydrolyzed sardine muscle at three different concentrations. *Aquaculture* 299(1-4):134-139

Dongmeza E, Steinbronn S, Francis G, Focken U, Becker K (2010): Investigations on the digestibility and metabolisability of the major nutrients and energy of maize leaves and barnyard grass in grass carp (*Ctenopharyngodon idella*). *Aquaculture Nutrition* 16(3):313-326

Published Conference Proceedings (* = Peer reviewed)

- *Focken U, Becker K, 1993: Body composition of carp (*Cyprinus carpio* L.)
in: Proceedings of the Symposium "Fish in Ecophysiology and Ecotoxicology", Heidelberg, September 25-27, 1991.
VCH, Verlag Chemie Weinheim/New York, pp 269-288
- Focken U, Schiller M, Becker K (1994): A computer-controlled system for the continuous determination of metabolic rates of fish.
Bordeaux Aquaculture Conference, Bordeaux, March 24 - 27, 1994 (Oral presentation, Published in: Measures for Success. Contributions presented at the International Conference Bordeaux Aquaculture '94 (edited by P. Kestemont, J. Muir, F. Sevila & P. Willot) pp. 167-171
Editions CEMAGREF, Antony
- *Kühlmann KJ, Focken U, Becker K (1997) Wachstum und Nahrungsaufnahme des Milchfisch (*Chanos chanos* (Forsk. 1775)) während der Regen- und Trockenzeit in der semi-intensiven Teichproduktion auf den Philippinen. (Growth and feed intake of milkfish (*Chanos chanos* (Forsk. 1775)) during the wet and dry season in semi-intensively managed brackishwater ponds in the Philippines).
Proceedings of the Society for Nutritional Physiology 6:117
- Focken U, Becker K (1997) Ökologische Modellierung als Werkzeug für nachhaltige Ressourcennutzung: Das Beispiel von Laguna de Bay, Philippinen.
Oral presentation, Jointed workshop on tropical sciences of Humboldt-University Berlin, Georg-August University Göttingen and Hohenheim University. Hohenheim, 11.-12.12.1997 (Book of Abstracts p. 40, Proceedings pp. 205-210.
English translation: Ecological modelling as a tool for sustainable resource management: The example of Laguna de Bay, Philippines.
Animal Research and Development 49(1999):32-38
- Becker K, Focken U (1997) Ressourcen-Nutzung durch Aquakultur in den Tropen: Anforderungen unterschiedlicher Produktionssysteme an die Faktorausstattung der Fischfarmer.
Plenary Paper, Jointed workshop on tropical sciences of Humboldt-University Berlin, Georg-August University Göttingen and Hohenheim University. Hohenheim, 11.-12.12.1997 Proceedings pp. 25-30.
English translation: Resource utilization by aquaculture in the Tropics: Requirements of different production systems for production factors of the fish farmer.
Animal Research and Development 48(1999):84-91

- Francis G, Focken U, Becker K (1999): Utilisation of agricultural and fishery by-products in aquaculture in Kerala State, South India.
Joined workshop on tropical sciences of Humboldt-University Berlin, Georg-August University Göttingen and Hohenheim University. Göttingen, 3.-4.12.1998 (Oral Presentation, published in: Göttinger Beiträge zur Land- und Forstwirtschaft in den Tropen und Subtropen, Heft 133:232-236)
- *Santiago CB, Focken U, Becker K (2001): Voluntary feed intake and energy partitioning in tilapia (*Oreochromis niloticus*) fed diets with different protein/energy levels.
pp. 181-184 in: Proc. 15th Symposium on Energy Metabolism in Animals, Elsinor, Denmark September 10 - 16, 2000 (A. Chwalibog & K. Jakobsen, eds.). EAAP Publication No. 103, Wageningen Pers.
- *Focken U, Groth A, Hörstgen-Schwark G, Becker K (2001): Individual variability of growth, body composition and metabolic rates in clonal tilapia (*Oreochromis niloticus*).
pp. 333-336 in: Proc. 15th Symposium on Energy Metabolism in Animals, Elsinor, Denmark September 10 - 16, 2000 (A. Chwalibog & K. Jakobsen, eds.). EAAP Publication No. 103, Wageningen Pers.
- Focken U, Schlechtriem C, Becker K (2000): Contribution of natural food and compound feed to the gut content of hybrid tilapia (*Oreochromis niloticus* x *Oreochromis aureus*) in pond culture. (Oral Presentation) Proceedings of the 5th International Symposium on Tilapia in Aquaculture (ISTA V), Rio de Janeiro, Brazil, September 3-7, 2000 (K. Fitzsimmons & J. Carvalho Filho, eds.), Volume I:157-162
- Focken U, Hörstgen-Schwark G, Lückstädt C, Becker K (2000): Growth, metabolic rates and body composition of triploid tilapia (*Oreochromis niloticus*) in comparison to a diploid control of identical genetic origin. (Oral Presentation) Proceedings of the 5th International Symposium on Tilapia in Aquaculture (ISTA V), Rio de Janeiro, Brazil, September 3-7, 2000 (K. Fitzsimmons & J. Carvalho Filho, eds.), Volume II:359-365
- *Focken U (2004): $\delta^{15}\text{N}$ Values of Beetles (*Tribolium castaneum*) Reared on Wheat Flour, Corn Flour or Different Mixtures thereof.
Annual Conference of the German Society for Tropical Ecology (GTOE), Bayreuth, Germany, 18.-20. February 2004, Poster
Biodiversity and dynamics in tropical ecosystems (Axmacher JC & Golan T, eds.) Bayreuther Forum Ökologie 105:201

- *Gaye-Siessegger J, Focken U, Becker K (2004): Stable isotope analyses as an important technique for tracing C and N flows in complex tropical systems: constraints and possible solutions.
Annual Conference of the German Society for Tropical Ecology (GTOE), Bayreuth, Germany, 18.-20. Februar 2004 , Oral Presentation
Biodiversity and dynamics in tropical ecosystems (Axmacher JC & Golan T, eds.) Bayreuther Forum Ökologie 105:63
- Richter R, Gonzal A, Focken U, Becker K (2004): Uptake of natural food and supplemental feed by cultured Nile Tilapia, *Oreochromis niloticus* (L.) in Laguna de Bay, Philippines. (Oral presentation)
Proceedings of the 6th International Symposium on Tilapia in Aquaculture (ISTA VI), Manila, Philippines, September 12-16, 2004, Volume I:347-369
- Mamun SM, Focken U, Francis G, Becker K (2004): Growth performance and metabolic rates of genetically improved and conventional strains of Nile Tilapia, *Oreochromis niloticus* (L.), reared individually and fed *ad libitum* (Oral presentation)
Proceedings of the 6th International Symposium on Tilapia in Aquaculture (ISTA VI), Manila, Philippines, September 12-16, 2004, Volume I:379-399
- *Focken, U (2005): Stable isotopes as tracers for the metabolic routing of individual dietary components
Proceedings of the Society of Nutrition Physiology 14:37
- *Gaye-Siessegger J, Focken U, Abel Hj, Becker K (2006): Influence of dietary non-essential amino acid profile on growth performance and amino acid metabolism of Nile tilapia, *Oreochromis niloticus*
Proceedings of the Society of Nutrition Physiology 15:33
- Focken U (2007): Application of stable isotopes of carbon and nitrogen in aquaculture research
III International Conference "Fishery", Belgrade, Serbia, February 1-3, 2007
Markovic, Z. (ed.): Proceedings of the III International Conference "Fishery", pp. 60-65 (Invited keynote)
- Gaye-Siessegger J, Focken U (2007): Aquaculture in Germany: Production and production systems
III International Conference "Fishery", Belgrade, Serbia, February 1-3, 2007
Markovic, Z. (ed.): Proceedings of the III International Conference "Fishery", pp. 20-24
- *Gaye-Siessegger J, Mamun SM, Focken U (2007): Effect of dietary protein content and ration size on growth performance, body composition and utilization parameters of Nile tilapia, *Oreochromis niloticus*
Proceedings of the Society of Nutrition Physiology 17:22

- *Schober Goncalves Lima J, Focken U (2007): Analysis of soil nutrients and organic matter in organic and conventional marine shrimp ponds at Guaraira Lagoon, Rio Grande do Norte State, Brazil
9. Wissenschaftstagung Ökologischer Landbau, Stuttgart-Hohenheim March 20 - 23, 2007
Zwischen Tradition und Globalisierung - Beiträge zur 9. Wissenschaftstagung Ökologischer Landbau (Zikeli S, Claupein W, Dabbert S, Kaufmann B, Müller T & Valle Zarate, eds). Vol II:931-934
- *Qutob M, Dweik H, Shihab S, Abu-Lafi S, Levavi-Sivan B, Kerem Z, Francis G, Focken U, Becker K (2007): Utilization of local feed resources and available agricultural residues from the Palestinian region for tilapia feeding.
Proceedings of the International Arab African Fish Resources Conference, Cairo, Egypt, 28.06.-30.06.2007
Egypt. J. Aquat. Biol. Fish. 11(3):185-191
- *Gaye-Siessegger J, Mamun SM, Focken U (2007): Influence of dietary protein/energy ratio on growth, body composition, protein, lipid and energy retentions as well as amino acid metabolism of Nile tilapia, *Oreochromis niloticus*
Energy and Protein Metabolism and Nutrition, Vichy, France, 9-13 September 2007.
Wageningen Academic Publishers, EAAP Publication No. 124:485-486
- *Focken U, McCullagh JSO, Gaye-Siessegger J 2008: Effect of dietary amino acid profile on the $\delta^{13}\text{C}$ of selected amino acids in rainbow trout, *Oncorhynchus mykiss*. Proc. Soc. Nutr. Physiol. 17:153
- *Khalil W, Stadlander T, Francis G, Becker K, Focken U (2008): Effect of feed supplementation with different saponin fractions from *Trigonella foenum-graecum* on growth and expression of genes encoding GH and IGF-1 in carp, *Cyprinus carpio*
Proc. Soc. Nutr. Physiol. 17:32
- Stadlander T, Focken U, Levavi-Sivan B, Dweik H, Qutob M, Abu-Lafi S, Kerem Z and Becker K (2008): Treatment with saponins from *Trigonella foenum-graecum* and *Quillaja saponaria* influences sex ratio in Nile tilapia (*Oreochromis niloticus*) larvae
Proc. VIII International Symposium on Tilapia in Aquaculture (ISTA), Cairo, Egypt, Oct 12 - 14, 2008 , pp. 355-364
- *Focken U (2008): Application of stable isotopes in aquaculture nutrition research.
Avances en Nutrition Acuicola IX (Proceedings of the IX International Symposium on Aquaculture Nutrition, Ensenada/Mexico, Nov. 24-27, 2008, ed. Cruz Suarez E et al.), pp. 258-270

- *Steinbronn S, Tuan NN, Dongmeza E, Focken U (2010): Upland aquaculture in Yen Chau district (Son La Province, northern Vietnam): The Role of aquaculture in nutrient flows and rural livelihood.
International Symposium "Sustainable Land Use Rural Development in Mountainous Regions of Southeast Asia, Hanoi, 21-23 July 2010, p. 24
- *Pucher J, Mayrhofer R, El-Matbouli M, Focken U (2010): Improvements in pond management and application of low-cost fish feed increase fish production and raise benefit of small scale aquaculture systems in Yen Chau
International Symposium "Sustainable Land Use Rural Development in Mountainous Regions of Southeast Asia", Hanoi, 21-23 July 2010, p. 25
- *Tuan NN, Focken U (2010): Development of local, low-cost fish feed in mountainous regions in Vietnam.
International Symposium "Sustainable Land Use Rural Development in Mountainous Regions of Southeast Asia", Hanoi, 21-23 July 2010, p. 57
- *Mayrhofer R, Soliman H, Saleh M, Pucher J, Focken U, Trang T, El-Matbouli M (2010): Upland aquaculture in Yen Chau district (Son La Province, northern Vietnam): The Role of aquaculture in nutrient flows and rural livelihood.
International Symposium "Sustainable Land Use Rural Development in Mountainous Regions of Southeast Asia", Hanoi, 21-23 July 2010, p. 103
- *McCullagh JSO, Gaye-Siessegger J, Focken U (2010) Studies on amino acid metabolism in rainbow trout: effect of amino acid composition on growth performance and $\delta^{13}\text{C}$ of amino acids.
3rd EAAP International Symposium on Energy and Protein Metabolism and Nutrition, Parma, Italy, 6-9 September 2010
EAAP Publication 127 (Crovetto GM, ed.) , pp. xxx-xx4

Contributions to International Conferences

- Schroeder K, Coloso RM, Marte CL, Focken U, Becker K (1992): Studies on energy metabolism of milkfish (*Chanos chanos* Forsskal).
III. Asian Fisheries Forum, Singapur, October 26-30, 1992 (Oral Presentation)
- Becker K, Focken U (1993): Effect of feed supplementation with L-Carnitine on growth, metabolism and body composition of carp (*Cyprinus carpio* L.)
"The Carp Symposium", Budapest, September 6-9, 1993
(Poster, Aquaculture 129:341)
- Becker K, Da Silva P, Focken, U: Einfluß von Temperatur und Salzgehalt auf den Stoffwechsel von *Sarotherodon galilaeus* aus der Küstenlagune von Benin: Ergebnisse von Respirationsversuchen unter simulierten Umweltbedingungen.
(Effect of temperature and salinity on the metabolism of *Sarotherodon galilaeus* from a coastal lagoon in Benin: Results of respirometric experiments simulating environmental conditions.)
Annual Conference of the German Society for Tropical Ecology, Bremen, February 17-20, 1994 (Oral presentation, Book of Abstracts p. 12)
- Schroeder K, Becker K, Focken U, Coloso R, Marte CL: Einfluß von Temperaturschwankungen auf die Stoffwechselaktivität beim Milchfisch (*Chanos chanos* F.): erste Ergebnisse von Respirationsversuchen im Labor unter simulierten Umweltbedingungen.
(Effect of temperature on metabolism of milkfish (*Chanos chanos* F.): First results of respirometric experiments simulating environmental conditions)
Annual Conference of the German Society for Tropical Ecology, Bremen, February 17-20, 1994 (Oral presentation, Book of Abstracts p. 60)
- Focken U, Nellen W: Verbreitung und Nahrungsspektren wichtiger Fischarten im Arenal-Stausee, Costa Rica, Zentralamerika.
(Distribution and spectrum of dietary items of important fish species in Arenal Dam, Costa Rica, Central America)
Annual Conference of the German Society for Tropical Ecology, Bremen, February 17-20, 1994 (Oral presentation, Book of Abstracts p. 24)
- Focken U, Becker K (1994): Indirect calorimetry of aquatic organisms.
9th Conference of the International Society for Biological Calorimetry, Schmerwitz, May 27 - 31, 1994 (Oral Presentation, Book of Abstracts S22)
- Tress A, Focken U, Becker K (1994): Metabolic response of carp (*Cyprinus carpio* L.) to starvation and to protein-free diet below maintenance, as determined by indirect calorimetry.
9th Conference of the International Society for Biological Calorimetry, Schmerwitz, May 27 - 31, 1994 (Poster, Book of Abstracts P39)

- Schreiber S, Focken U, Becker K (1995): Growth, metabolism and body composition of individually reared male and female cichlids (*Oreochromis niloticus*).
Society for Experimental Biology/European Aquaculture Society Meeting, St. Andrews, April 1995 (Poster)
- Becker K, Focken U, Schmekel K, Coloso RM (1995): L-Carnitine supplementation of feeds for black tiger shrimp *Penaeus monodon*.
Fourth Asian Fisheries Forum, Peking, 16. - 20. Oktober 1995 (Oral Presentation, Book of Abstracts, p. 96)
- Focken U, Becker K (1995): Stable isotopes in ecological and aquaculture research.
Fourth Asian Fisheries Forum, Peking, 16. - 20. Oktober 1995 (Oral Presentation, Book of Abstracts p. 58)
- Kühlmann KJ, Coloso RM, Focken U, Becker K (1995): Contribution of natural and supplemental feeds to the growth of milkfish (*Chanos chanos* Forsskal) in semi-intensivly managed brackishwater ponds.
Fourth Asian Fisheries Forum, Peking, 16. - 20. Oktober 1995 (Oral Presentation, Book of Abstracts, p. 93)
- Schroeder K, Coloso RM, Focken U, Marte CL, Becker K (1995): Oxygen consumption of juvenile milkfish (*Chanos chanos* Forsskal) at decreasing oxygen partial pressure.
Fourth Asian Fisheries Forum, Peking, 16. - 20. Oktober 1995 (Oral Presentation, Book of Abstracts p. 68)
- Focken U, Kühlmann K, Becker K: Die Milchfisch-Aquakultur in semi-intensiven Produktionssystemen auf den Philippinen: Bedeutung, Probleme und Forschungsansätze zur Steigerung der Produktivität. (Production of milkfish in semi-intensive production systems in the Philippines: Importance, problems and scientific approaches to increase productivity)
Annual meeting of the Centers for Agriculture in the Tropics and Subtropics of the Universities Hohenheim and Göttingen, Göttingen 14. - 15. 12. 1995 (Oral Presentation, Book of Abstracts p. 26-28)
- Focken U, Becker K, Coloso RM (1996): Carbon sources of shrimp *Penaeus monodon* FABRICIUS.
Second International Conference on the Culture of Penaeid Prawns and Shrimps, Iloilo, Philippines May 14-17, 1996 (Oral Presentation, Book of Abstracts p 22)
- Focken U, Groth A, Becker K, Coloso RM (1997): What makes shrimp grow in a semi-intensive pond system? A stable isotope tracer study on the contribution of natural food and supplemental feed to the growth of black tiger shrimp *Penaeus monodon* FABRICIUS.
World Aquaculture Conference '97, February 20 - 23, Seattle, Washington, USA (Invited Presentation, Special Session on Sustainable Shrimp Culture, Book of Abstracts p. 162)

- Focken U, Kühlmann K-J, Becker K (1997): The relative proportions of supplemental and natural food ingested by milkfish, *Chanos chanos* (Forsskal 1775) reared semi-intensively in brackish water ponds during the wet and the dry season in the Philippines.
III. International Symposium on Nutritional Strategies and Management of Aquaculture Waste (NSMAW), Vila Real, Portugal, October 2 - 4, 1997 (Poster, Book of Abstracts p. 50)
- Focken U (1998): Natural food and supplemental feed in the diet of milkfish (*Chanos chanos*) in semi-intensive pond culture: Comparison of results from microscopic analysis of gut content and stable isotope analysis of body tissue.
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Oral Presentation, Book of Abstracts p. 55)
- Richter H, Focken U (1998): MAXIMS, a computer model for estimating daily ration in fish: A test of its stability in the face of artificially induced variability.
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Poster, Book of Abstracts p. 449)
- Groth A, Focken U, Coloso RM, Becker K (1998): Effects of L-Carnitine supplementation on growth, survival and body composition of individually reared juvenile Tiger shrimp (*Penaeus monodon* Fabricius)
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Oral Presentation, Book of Abstracts p. 57)
- Kühlmann KJ, Focken U, Becker K, Coloso RM (1998): Growth, feed intake and feed conversion rates of milkfish (*Chanos chanos* Forsskal) in semi-intensive pond culture in the Philippines during wet and dry season
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Poster, Book of Abstracts p. 397)
- Bocci M, Focken U, Bendoricchio G (1998): Modelling of fish growth and feeding area in extensive aquaculture: Cage culture in Laguna de Bay, Philippines
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Poster, Book of Abstracts p. 340)
- Lueckstaedt, C, Focken U, Coloso RM, Becker K (1998): An estimation of the daily food intake of milkfish (*Chanos chanos* Forsskal) in a semi-intensively managed commercial brackishwater pond in the Philippines
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Poster, Book of Abstracts p. 343)
- Kock M, Focken U, Richter H, Becker K (1998): The influence of fishcages on the food of silver perch (*Terapon plumbeus*) in Laguna de Bay, Philippines
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Poster, Book of Abstracts p. 341)

- Cuvin-Aralar ML, Focken U, Becker K (1998): Growth and proximate composition of Nile tilapia fed with phytoplankton cultured in three different nitrogen-phosphorus ratios
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Poster, Book of Abstracts p. 58)
- Francis G, Focken U, Becker K (1998): Effects of cooked and crude tapioca tuber meal on growth and body composition of common carp (*Cyprinus carpio*)
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Poster, Book of Abstracts p. 342)
- Focken U, Batac-Catalan Z, Becker K (1998): Baseline data for sustainable management of capture fishery and aquaculture in Laguna de Bay, Philippines: A survey of artisanal fishery.
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Oral Presentation, Book of Abstracts p. 55)
- Serrano A, Focken U, Francis G, Makkar HPS, Becker K (1998): Effects of *Quillaja* saponins on the activity of selected gut and liver enzymes of carp, *Cyprinus carpio*
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Oral Presentation, Book of Abstracts p. 204)
- Santiago CBS, Focken U, Becker K (1998): Evaluation of some feeds for Tilapia culture in Laguna de Bay, Philippines.
V Asian Fisheries Forum, Chiang Mai, Thailand, 11.-14.11.1998 (Poster, Book of Abstracts p. 453)
- Richter H, Focken U, Becker K, Santiago C (1999): Growth of cultured Nile Tilapia, *Oreochromis niloticus* (L.) in Laguna de Bay, Philippines, during the dry and wet seasons in relation to phytoplankton availability.
World Aquaculture Conference, Sydney April 26 - May 2, 1999
(Oral Presentation, Book of Abstracts p. 267)
- Lückstädt C, Focken U, Coloso R, Becker K (1999): Untersuchungen zur Nahrungsökologie von Milchfischen, *Chanos chanos* (Forsskal, 1775) in semi-intensiven Teichsystemen auf den Philippinen. (Investigations in the feeding ecology of milkfish, *Chanos chanos* (Forsskal, 1775) in semi-intensive pond culture in the Philippines.) IV Symposium zur Ökologie, Ethologie und Systematik der Fische und II. Treffen der Gesellschaft für Ichthyologie (GfI), Berlin, 9.-11.09.1999 (Book of Abstracts p. 42)
- Focken U, Schlechtriem C, Abel HJ, Becker K (1999): Evaluation of the relative contribution of natural food and compound feed to fish growth based on $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ ratios. Annual Meeting of the German Association for Stable Isotope Research (GASIR), Göttingen, 4.-6. Oktober 1999. Oral Presentation, *Isotopes Environ. Health Stud.* 35:296-297

- Francis G, Focken U, Becker K (1999): A traditional integrated rice prawn rotation culture system from Kerala State, India. Joined workshop on tropical sciences of Humboldt-University Berlin, Georg-August University Göttingen and Hohenheim University Berlin, October 14-15, 1999 (Oral Presentation, Proceedings on CD-ROM)
- Focken U *et al.* (2000): Laguna de Bay, Philippinen: Ökologische Modellierung und Ressourcenmanagement. Annual Conference of the German Society for Tropical Ecology, Würzburg, March 1.-3. 2000 (Oral Presentation, Book of Abstracts p. 24)
- Richter H, Lückstädt C, Schlechtriem C, Focken U, Becker K (2000): Quantification of fish feed intake with the model MAXIMS: Evidence for severe underestimation of daily ration. AQUA 2000, World Aquaculture Conference/European Aquaculture Conference, Nice, May 1-7, 2000 (Oral Presentation, Book of Abstracts p. 599)
- Richter H, Focken U, Becker K (2000): Stomach content modelling to estimate food consumption in fish - state of the art and confounding factors. COST 827 Workshop „Diet selection by fish - Variability in feeding behaviour”, Maratea, Potenza, June 8-10, 2000 (Oral Presentation, Book of Abstracts p. 32)
- Focken U (2000): Stable isotopes in animal ecology - The effect of ration size on $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ in fish. Annual Meeting of the German Association for Stable Isotope Research (GASIR), Leipzig, 4.-6. October, 2000. (Oral Presentation) Abstract in *Isotopes in Environmental and Health Studies* 36 (4)
- Focken U, Marte C, Coloso R, Becker K (2000): Twelve years of cooperative research on milkfish to increase aquaculture production for local markets in the Philippines. German Conference on Tropical Sciences, Hohenheim 11.-12. Oktober 2000 (Keynote paper, Proceedings on CD-ROM)
- Francis G, Focken U, Becker K (2000): Improving the profitability of traditional rice farming by introducing alternate rice-fish culture in Kerala state, India. German Conference on Tropical Sciences, Hohenheim 11.-12. Oktober 2000 (Poster, Proceedings on CD-ROM)
- Lueckstaedt C, Focken U, Coloso R, Becker K (2000): Survey on the use of natural food and supplemental feed in commercial milkfish farms on Panay, Philippines. German Conference on Tropical Sciences, Hohenheim 11.-12. Oktober 2000 (Poster, Proceedings on CD-ROM)
- Focken U (2001): Stable isotopes as tracers in food webs: Applications, principles, problems and challenges. 14. Annual Conference of the German Society for Tropical Ecology, Bremen, 14.-16. Februar 2001 (Oral Presentation, Book of Abstracts p. 44)

- Groth A, Focken U, Becker K (2001): Laboratory investigations on the influence of oxygen concentration in the water on the feeding behavior of Tiger shrimp (*Penaeus monodon*). 14. Annual Conference of the German Society for Tropical Ecology, Bremen, 14.-16. Februar 2001 (Oral Presentation, Book of Abstracts p. 50)
- Kock M, Focken U, Becker K (2001): Der Einfluss von Aquakultur auf die Nahrung des Manila-Wels (*Arius manillensis* Valenciennes) in Laguna de Bay, Philippinen. 14. Annual Conference of the German Society for Tropical Ecology, Bremen, 14.-16. Februar 2001 (Oral Presentation Book of Abstracts p. 71-72)
- Richter H, Focken U, Becker K, Santiago CB, Afuang W (2001) Preliminary observations on the diel feeding patterns of Nile Tilapia, *Oreochromis niloticus* (L) in Laguna de Bay, Philippines, with the aid of the computer model MAXIMS
Poster, Abstract p. 160 in: Conservation and Ecological Management of Philippine Lakes in Relation to Fisheries and Aquaculture (Santiago CB, Cuvin-Aralar ML, Basiao ZU, eds.) SEAFDEC, Tigbauan, Iloilo, 187pp.
- Cuvin-Aralar ML, Focken U, Becker K, Santiago CB (2001) Species and proximate composition of Laguna de Bay phytoplankton cultured in three different Nitrogen-Phosphorus ratios and their utilization by Nile Tilapia.
Poster, Abstract p. 161 in: Conservation and Ecological Management of Philippine Lakes in Relation to Fisheries and Aquaculture (Santiago CB, Cuvin-Aralar ML, Basiao ZU, eds.) SEAFDEC, Tigbauan, Iloilo, 187pp.
- Teteh S, Francis G, Focken U, Becker K (2001): Effect of feed supplementation with Quillaja saponins on growth and metabolism of male tilapia, *Oreochromis niloticus*, during grow-out.
German Conference on Tropical and Subtropical Agriculture and Forestry, Bonn, October 10 - 12, 2001 (Poster, Book of Abstracts p. 217, Proceedings on CD-ROM, 7p.)
- Focken U (2001): Quantification of particle ingestion by filter-feeding fish using modern particle counting/sizing techniques.
6th Asian Fisheries Forum, Kaohsiung, Taiwan, Nov. 26-30, 2001 (Oral Presentation, Book of Abstracts p. 81)
- Schlechtriem C, Focken U, Becker K (2001): Testing of nematodes *Panagrellus redivivus* grown on different media as alternative live food for first feeding carp *Cyprinus carpio* larvae.
6th Asian Fisheries Forum, Kaohsiung, Taiwan, Nov. 26-30, 2001 (Oral Presentation, Book of Abstracts p. 224)
- Lückstädt C, Focken U, Becker K (2001): Is there a size dependent feeding behaviour of milkfish *Chanos chanos* cultured semi-intensively in the Philippines?
6th Asian Fisheries Forum, Kaohsiung, Taiwan, Nov. 26-30, 2001 (Poster, Book of Abstracts p. 80)

- Ricci M, Fifi AP, Ragni A, Schlechtriem C, Focken U (2001): The free-living nematode *Panagrellus redivivus* as alternative live food for first feeding fish larvae: A technology for mass production
6th Asian Fisheries Forum, Kaohsiung, Taiwan, Nov. 26-30, 2001 (Poster, Book of Abstracts p. 214)
- Focken U (2002): Contribution of fish to sustainable food supply.
Sustaining Food Security and Managing Natural Resources in Southeast Asia – Challenges for the 21st century. Chiang Mai, Thailand, January 8-11, 2002 (Oral Presentation, Book of Abstracts I: Contributed Papers pp. 155-157)
- Slechtriem C, Focken U, Ricci M, Becker K (2002): A new technology for the mass production of the free-living nematode *Panagrellus redivivus*, an alternative live food for first-feeding fish larvae: A contribution to the improvement of sustainable seed supply for aquaculture
Sustaining Food Security and Managing Natural Resources in Southeast Asia – Challenges for the 21st century. Chiang Mai, Thailand, January 8-11, 2002 (Book of Abstracts II: Posters pp. 7-8)
- Focken U (2002): Back-calculation of the diet of animals from stable isotope data: A test under laboratory conditions.
3rd International Conference on Application of Stable Isotopes to Ecological Studies, Flagstaff, Arizona, USA, April 29 – May 1, 2002 (Oral Presentation, Book of Abstracts p. 67)
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2002): Influence of feeding level on the stable isotope ratios of C and N in carp.
3rd International Conference on Application of Stable Isotopes to Ecological Studies, Flagstaff, Arizona, USA, April 29 – May 1, 2002 (Poster, Book of Abstracts p. 73)
- Slechtriem C, Focken U, Becker K (2002): Variation of the essential fatty acid composition of the nematode *Panagrellus redivivus* mass produced on solid media.
26th Annual Larval Fish Conference, Bergen, Norway, 22-26 July 2002 (Oral Presentation, Book of Abstracts)
- Slechtriem C, Focken U, Becker K (2002): Stable isotopes as a tool for assimilation studies on larval fish feeding on live food.
Larvae 2002 Conference, Vigo, Spain, September 15-20, 2002 (Oral Presentation, Book of Abstracts)
- Focken U (2002): Effect of different wheat/corn ratios in semi-synthetic diets on carbon isotopic ratios in carp (*Cyprinus carpio* L.)
Annual Meeting of the German Association for Stable Isotope Research (GASIR), Warnemünde, Germany, September 25-27, 2002 (Oral Presentation, Book of Abstracts)

- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2002): Effect of feeding level on $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ in Nile tilapia (*Oreochromis niloticus*) fed a wheat-based semi-synthetic diet
Annual Meeting of the German Association for Stable Isotope Research (GASIR), Warnemünde, Germany, September 25-27, 2002 (Oral Presentation, Book of Abstracts)
- Schlechtriem C, Focken U, Becker K (2002): Effect of different lipid extraction methods on $\delta^{13}\text{C}$ of lipid fraction of fish and different fish feeds.
Annual Meeting of the German Association for Stable Isotope Research (GASIR), Warnemünde, Germany, September 25-27, 2002 (Poster, Book of Abstracts)
- Lückstädt C, Wirth M, Focken U, Becker K (2003): Chemical composition of two different natural food complexes present in semi-intensive milkfish grow-out ponds. Asian-Pacific Aquaculture 2003, Bangkok, Thailand, September 22 - 25, 2003. (Poster, Book of Abstract "Quality: The Focus of Asian Aquaculture", p. 129)
- Focken U (2003): $\delta^{13}\text{C}$ Values of an Herbivore and the Ratio of C_3 to C_4 Plant Carbon in Its Diet (Teeri & Schoeller 1979) – A Classical Topic Revisited
Annual Meeting of the German Association for Stable Isotope Research (GASIR), Cologne, Germany, 6.-8. October 2003 (Oral Presentation, Book of Abstracts)
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2003): Influence of dietary lipid content on the activity of lipogenic enzymes in the liver and on whole body $\delta^{13}\text{C}$ values of Nile tilapia, *Oreochromis niloticus* (L.)
Annual Meeting of the German Association for Stable Isotope Research (GASIR), Cologne, Germany, 6.-8. October 2003 (Oral Presentation, Book of Abstracts)
- Schlechtriem C, Focken U, Becker K (2004): The suitability of the free-living nematode *Panagrellus redivivus* as alternative live food for first feeding fish larvae.
World Aquaculture Conference '04, Honolulu, 1.-3. March 2004, Hawaii, USA (Invited Contribution, Special Symposium "Marine Ornamentals 04") Book of Abstracts p. 90
- Focken U (2004): Isotopic ratios of body lipids, lipid-free matter and chitin of the beetle *Tribolium castaneum* reared on different culture media
4th International Conference on Application of Stable Isotopes to Ecological Studies, Wellington, NZ, April 19 – 24, 2004 (Oral presentation, Book of Abstracts p. 35)

- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2004): Measuring enzyme activities can improve estimates for the trophic shift.
4th International Conference on Application of Stable Isotopes to Ecological Studies, Wellington, NZ, April 19 – 24, 2004 (Oral presentation, Book of Abstracts p. 34)
- Focken U, Becker K (2004): Back-calculation of the diet based on stable isotope data: A critical review.
Feeding Ecology Conference, Max-Planck-Institute for Evolutionary Anthropology, Leipzig, Germany, 17. - 19. August 2004 (Invited Contribution, Book of Abstracts p. 8)
- Lückstädt C, Groth A, Focken U (2004): Observations on daily feeding rhythm of juvenile milkfish *Chanos chanos* in brackishwater ponds.
Australasian Aquaculture 2004, Sydney, September 26-29, 2004. (Poster presentation, Book of Abstracts p. 196)
- Wuthenau M von, Garcia-Ortega, A, Puello-Cruz A, Focken U, Becker K (2004): The free living nematode *Panagrellus redivivus* as an alternative to *Artemia* as live food in the Nutrition of larvae of the Pacific White Shrimp, *Litopenaeus vannamei*
German Conference on Tropical and Subtropical Agriculture and Forestry, Berlin, October 5 - 7, 2004 (Oral presentation, Book of Abstracts p. 392-393)
- Steinbronn S, Hussain, MA, Francis G, Focken U, Becker K (2004): Impact of dietary Quillaja saponins on growth, sex ratio and reproduction of Nile tilapia *Oreochromis niloticus* under field conditions in Bangladesh
VII Asian Fisheries Forum, Penang, Malaysia, November 30 - December 4, 2004 (Oral presentation, Book of Abstracts I p. 57)
- Steinbronn S, Tuan NN, Focken U, Becker K (2004): Small-scale aquaculture in upland areas of Yen Chau district, Son La province, Northern Vietnam
Special Symposium "Technology Needs and Prospects for Asian Aquaculture: Participation of the Poor", VII Asian Fisheries Forum, Penang, Malaysia, November 30 - December 4, 2004 (Oral presentation, Book of Abstracts I p. 264)
- Lueckstaedt C, Focken U, Coloso R (2005): Intake of natural food and supplemental feed in milkfish *Chanos chanos* (Forsskål) in commercially managed ponds in Panay Island, Philippines
World Aquaculture 2005, Nusa Dua, Bali, Indonesia, May 9 - 13, 2005
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2005): Effect of dietary protein/energy ratio on trophic shift of C and N isotopes and on the activity of enzymes involved in the amino acid metabolism of Nile tilapia, *Oreochromis niloticus* (L.)
Jahrestagung der Arbeitsgemeinschaft Stabile Isotope, Jena, 10.-12. Oktober 2005

- Mamun SM, Focken U, Becker K (2005): Comparative efficiency of apparent protein, lipid and dry matter digestion of a laboratory feed in three strains of Nile Tilapia, *Oreochromis niloticus* (L.)
Deutscher Tropentag "The Global Food & Product Chain - Dynamics, Innovations, Conflicts, Strategies", Stuttgart-Hohenheim, 11. - 13. Oktober 2005 (Poster, Book of Abstracts p.)
- Steinbronn S, Geiss C, Fangmeier A, Tuan NN, Focken U, Becker K (2005): The use of pesticides in paddy rice and possible impacts on fish farming in Yen Chau/Son La Province, Northern Vietnam.
Deutscher Tropentag "The Global Food & Product Chain - Dynamics, Innovations, Conflicts, Strategies", Stuttgart-Hohenheim, 11. - 13. Oktober 2005 (Poster, Book of Abstracts p. 245)
- Steinbronn S, Tuan NN, Focken U, Becker K, Hong NTL (2005): Limitations in fish production in Yen Chau/Son La Province, Northern Vietnam.
Deutscher Tropentag "The Global Food & Product Chain - Dynamics, Innovations, Conflicts, Strategies", Stuttgart-Hohenheim, 11. - 13. Oktober 2005 (Oral, Book of Abstracts p. 30)
- Dongmeza E, Steinbronn S, Focken U, Becker K (2005): Investigations on the nutrient and antinutrient content of typical plant ingredients used as fish feed in small scale aquaculture in Yen Chau/Son La Province, Northern Vietnam.
Deutscher Tropentag "The Global Food & Product Chain - Dynamics, Innovations, Conflicts, Strategies", Stuttgart-Hohenheim, 11. - 13. Oktober 2005 (Poster, Book of Abstracts p. 241)
- Focken U (2005): Application of Stable Isotopes to Trace Food Webs in Tropical Aquaculture
Deutscher Tropentag "The Global Food & Product Chain - Dynamics, Innovations, Conflicts, Strategies", Stuttgart-Hohenheim, 11. - 13. Oktober 2005 (Oral)
- Mamun SM, Focken U, Francis G, Becker K (2006): A fish respirometer system to measure the critical oxygen tension (P_c) and different metabolic rates under simulated environmental stress by regulating dissolved oxygen and temperature in water
Aquaculture America 2006, Las Vegas, February 13-16, 2006 (oral)
- Steinbronn S, Dongmeza E, Tuan NN, Hong NTL, Focken U, Becker K (2006): Livelihood from weeds and leaves - Nutrient flows in the crop/aquaculture system of Black Thai Farmers in Yen Chau/Son La Province/Northern Vietnam
International Symposium Towards Sustainable Livelihoods and Ecosystems in Mountainous Regions, Chiang Mai, Thailand, March 7 - 9, 2006 (oral)

- Mamun SM, Lawrence P, Focken U, Becker K (2006): A computer operated micro-respirometer system to study energy metabolism in fish during early life
Aqua2006 World Aquaculture 2006 & Aquaculture Europe 2006, Florence, Italy, May 9 - 13, 2006 (oral, Book of Abstracts p. 871)
- Gaye-Siessegger J, Focken U, Becker K (2006): Effect of dietary non-essential amino acid profile on growth performance and amino acid metabolism of rainbow trout *Oncorhynchus mykiss*
Aqua2006 World Aquaculture 2006 & Aquaculture Europe 2006, Florence, Italy, May 9 - 13, 2006 (oral, Book of Abstracts p. 316)
- Schober Goncalves Lima J, Frank L, Araújo-de-Almeida E, Lima Santos R, Souza Santos A, Focken U (2006): Macrobenthos occurrence in organic and conventional marine shrimp farms in Brazil
Aqua2006 World Aquaculture 2006 & Aquaculture Europe 2006, Florence, Italy, May 9 - 13, 2006 (oral, Book of Abstracts p. 315)
- Focken U (2006): Stable carbon and nitrogen isotopes in body and faeces of locusts, *Schistocerca gregaria*, fed mixtures of isotopically distinct diets
5th International Conference on the Application of Stable Isotope Techniques to Ecological Studies (ISOECOL5), Belfast, Northern Ireland, UK, August 13-18, 2006 (poster, Book of Abstracts p. 89)
- Gaye-Siessegger J, Focken U, Abel HJ, Becker K (2006): Effect of dietary protein level and feeding rate on trophic shifts of C and N isotopes and on the activity of enzymes involved in the amino acid metabolism of Nile tilapia, *Oreochromis niloticus*
5th International Conference on the Application of Stable Isotope Techniques to Ecological Studies (ISOECOL5), Belfast, Northern Ireland, UK, August 13-18, 2006 (poster, Book of Abstracts p. 90)
- Focken U (2006): Carbon and Nitrogen Isotopes in the Body of Red Flour Beetles, *Tribolium castaneum*, Reared on Wheat Grown under FACE (Free Air Carbon Dioxide Enrichment) or Control Conditions and Three Mixtures Thereof
29. Jahrestagung der Gesellschaft für Stabile Isotope (GASIR) Freiberg/Saxony, October 4-6, 2006 (oral, Book of Abstracts without pagination)
- Focken U, McCullagh J, Gaye-Siessegger J (2007): Effect of dietary non-essential amino acid profile on $\delta^{13}\text{C}$ values of individual amino acids in rainbow trout, *Oncorhynchus mykiss*. 30. Jahrestagung der Gesellschaft für Stabile Isotope (GASIR) Bayreuth, October 8-10, 2007 (oral presentation, Book of Abstracts V.3.1)

- Nguyen NT, Steinbronn S, Dongmeza E, Dung B, Focken U, Becker K (2007): Growth and feed conversion of grass carp (*Ctenopharyngodon idella*) fed fresh plant material under laboratory conditions in Vietnam. Tropentag 2007: Utilization of diversity in land use systems: international research on food security, natural resource management and rural development. Book of Abstracts p. 26
- Nguyen NT, Steinbronn S, Focken U, Becker K (2008): Development of supplemental diets for carp species in upland ponds in Vietnam based on locally available resources. Annual conference of the Aquatic Ecosystem Health and Management Society, Hanoi, Feb. 18-20, 2008 (Poster)
- Schober Concalves Lima J, Ccopa Rivera E, Focken U (2008): Comparison of Environmental Impact of Conventional and Organic Shrimp Farming in Guaraira Lagoon, Brazil, by Emergetic Analysis. Annual Conference of the German Society for Tropical Ecology, Stuttgart-Hohenheim, February 18-22, 2008 (Oral presentation)
- Khalil W, Stadlander T, Francis G, Focken U, Becker K, Levavi-Sivan B, Kerem Z, Dweik H, Qutob M, Abu-Lafi S (2008): Saponin fractions from *Trigonella foenum-graecum* in the diet affect growth and expression of GH and IGF-1 encoding genes in tilapia (*Oreochromis niloticus*). 25th Congress of the European Society for Comparative Biochemistry and Physiology, Ravenna (Italy) September 9-11, 2008
Comparative Biochemistry and Physiology, Part A 151 (2008) S1:512-513
- Focken U, McCullagh J, Gaye-Siessegger J (2008): Tracing amino acids from the diet to tissues by LC-IRMS: A feeding trial with rainbow trout, *Oncorhynchus mykiss*, using purified diets partly enriched with ¹³C-glutamate. The 6th International Conference on Applications of Stable Isotope Techniques to Ecological Studies Honolulu, Hawaii, USA, 25-29 August 2008 (oral presentation)
- McCullagh J, Gaye-Siessegger J, Focken U (2008): Tracing amino acids from the diet to body tissues by LC-IRMS: Method development for a feeding trial with rainbow trout. Joint European Stable Isotope User Meeting (JESIUM), Presqu'île de Giens/France, August 31 - Sept 5, 2008 (oral presentation)
- Focken U (2008): Application of stable isotopes in aquaculture nutrition research. IX International Symposium on Aquatic Nutrition, Ensenada, BC, Mexico, Nov. 23-28, 2008 (Invited keynote)
- Focken U, Mamun SM (2009): Comparative Studies on Nutritional and Physiological Aspects of Conventional Nile Tilapia, Genetically Improved Nile Tilapia and Genetically Male Nile Tilapia.
1st International Conference on "Aquatic Biotechnology and Environmental Safety" Dokki/Gizah, Egypt, April 14 - 16, 2009 (Invited keynote)
- Tuan NN, Focken U (2009): Earthworm Powder as Potential Protein Source in Diets for Common Carp (*Cyprinus carpio* L.)

- Tropentag 2009: International Research on Food Security, Natural Resource Management and Rural Development, Hamburg, 6-8 October 2009. p 261
- Tschanadi A, Wehrtmann I, Focken U (2009): Utilisation of by-Catch and Processing Wastes from a Marine Fishery in Feeds for the Organic Aquaculture of *Litopenaeus vannamei* in Costa Rica
Tropentag 2009: International Research on Food Security, Natural Resource Management and Rural Development, Hamburg, 6-8 October 2009. p 265
- Wurst S, Wehrtmann I, Focken U (2009): Evaluation of Protein-rich Feed Ingredients for the Organic Production of Freshwater Prawns *Macrobrachium rosenbergii* by Smallholders in the Inlands of Costa Rica
Tropentag 2009: International Research on Food Security, Natural Resource Management and Rural Development, Hamburg, 6-8 October 2009. p 266
- Pucher J, Mayrhofer R, Hung TQ, El-Matbouli M, Focken U (2010): Growth Functions of Fish Species Cultured in Small Scale Upland Aquaculture Systems under Traditional and Modified Pond Management Schemes in Yen Chau, Northern Viet Nam
Tropentag 2010 - World Food System - A Contribution from Europe. Zürich, 14-16 September 2010, pp. 463-464
- Stadtlander T, Levavi-Sivan B, Dweik H, Qutob M, Abu-Lafi S, Kerem Z, Francis G, Focken U, Becker K (2010): Effect of a Saponin Fraction Extracted from *Trigonella foenum-graecum* L. and two Commercially Available Saponins on Sex Ratio and Gonad Histology of Nile Tilapia, *Oreochromis niloticus* (L.), Fry.
Tropentag 2010 - World Food System - A Contribution from Europe. Zürich, 14-16 September 2010, pp. 465-466
- Harter T, Buhrke F, Kumar V, Focken U, Makkar HPS, Becker K (2010): Detoxified *Jatropha curcas* Kernel Meal as a Protein Source for White Leg Shrimp (*Penaeus vannamei*) Diet
Tropentag 2010 - World Food System - A Contribution from Europe. Zürich, 14-16 September 2010, p. 457

Non-Reviewed Publications

Becker K, Focken U, Schroeder K, Coloso RM 1995: An item of staple diet from the mangrove swamps: Improved methods of production for the milkfish. German Research - Reports of the DFG 1995:38-40

Focken U, Becker K 1996: Milkfish (*Chanos chanos*) production in semi-intensive aquaculture systems in the Philippines: Importance, problems and scientific approaches to increase productivity. Animal Research and Development 43/44:150-157 (Original Contribution)

Lückstädt C, Wirth M, Focken U, Becker K (2005): Chemical composition of natural food from semi-intensively managed milkfish ponds in the Philippines World Aquaculture Magazine 36(2):4+70

Books and Contributions to Books:

Balzer G, Deipenbrock N, Ecker R, Eisenbeis M, Focken U, Giehr K, Reichelt B, Saile P 1987: Shifting Cultivation in West Pasaman, Sumatra. Schriftenreihe des Fachbereichs Internationale Agrarentwicklung der Technischen Universität Berlin Nr. 102 Verlag Josef Margraf, Aichtal, XXVIII+206p

Focken U, 1993: Limnologische und fischereibiologische Untersuchungen am Arenal-Stausee, Costa Rica, Zentralamerika (Studies in limnology and fisheries of Arenal dam, Costa Rica, Central America) Verlag Shakar, Aachen, XVI+205p

Focken U 2003: Tracing the nutrient flow in aquatic systems by stable isotopes: Experimental studies on factors affecting the influence of the diet on the distribution of carbon and nitrogen isotopes in animals Inaugural thesis, University of Hohenheim, 201p

Scientific Reports to EU

Focken U (comp. and ed.) 1996: Laguna de Bay, Philippines: An Ecosystem Approach for Sustainable Management. Scientific Progress Report for 1995, EU-STD3 Contract No. TS3*CT94-0334. vii + 96p

Focken U (comp. and ed.) 1997: Laguna de Bay, Philippines: An Ecosystem Approach for Sustainable Management. Scientific Progress Report for 1996, EU-STD3 Contract No. TS3*CT94-0334. ix + 158p

Focken U (comp. and ed.) 1998: Laguna de Bay, Philippines: An Ecosystem Approach for Sustainable Management. Scientific Progress Report for 1997, EU-STD3 Contract No. TS3*CT94-0334. xi + 118p

Focken U (comp. and ed.) 1999: Laguna de Bay, Philippines: An Ecosystem Approach for Sustainable Management. Final Scientific Report, EU-STD3 Contract No. TS3*CT94-0334. Vol 1: vi + 99p

Focken U (comp. and ed.) 1999: Laguna de Bay, Philippines: An Ecosystem Approach for Sustainable Management. Final Scientific Report, EU-STD3 Contract No. TS3*CT94-0334. Vol 2: iv + 225p