

# Günther K.H. Zupanc

## *Scientific Publications*

(as of March 1, 2011)

### *1. Research Papers*

- [1-1] Kramer, B., **Zupanc, G.K.H.**: Conditioned discrimination of electric waves differing only in form and harmonic content in the electric fish, *Eigenmannia*. *Naturwissenschaften* **73** (11), 679-680 (1986)
- [1-2] **Zupanc, G.K.H.**, Heiligenberg, W.F.: Sexual maturity-dependent changes in neuronal morphology in the prepacemaker nucleus of adult weakly electric knifefish, *Eigenmannia*. *Journal of Neuroscience* **9** (11), 3816-3827 (1989)
- [1-3] **Zupanc, G.K.H.**: Clustering of cell bodies, bundling of dendrites, and gap junctions: morphological substrate for electrical coupling in the prepacemaker nucleus. *Neuroscience Letters* **129**, 29-34 (1991)
- [1-4] **Zupanc, G.K.H.**, Maler, L., Heiligenberg, W.: Somatostatin-like immunoreactivity in the region of the prepacemaker nucleus in weakly electric knifefish, *Eigenmannia*: a quantitative analysis. *Brain Research* **559**, 249-260 (1991)
- [1-5] **Zupanc, G.K.H.**: The synaptic organization of the prepacemaker nucleus in weakly electric knifefish, *Eigenmannia*: a quantitative ultrastructural study. *Journal of Neurocytology* **20**, 818-833 (1991)
- [1-6] **Zupanc, G.K.H.**, Okawara, Y., Zupanc, M.M., Fryer, J.N., Maler, L.: *In situ* hybridization of putative somatostatin mRNA in the brain of electric gymnotiform fish. *NeuroReport* **2** (11), 707-710 (1991)
- [1-7] **Zupanc, G.K.H.**, Heiligenberg, W.: The structure of the diencephalic prepacemaker nucleus revisited: light microscopic and ultrastructural studies. *Journal of Comparative Neurology* **323**, 558-569 (1992)
- [1-8] **Zupanc, G.K.H.**, Zupanc, M.M.: Birth and migration of neurons in the central posterior/prepacemaker nucleus during adulthood in weakly electric knifefish, *Eigenmannia sp.* *Proceedings of the National Academy of Sciences U.S.A.* **89**, 9539-9543 (1992)
- [1-9] **Zupanc, G.K.H.**, Airey, J.A., Maler, L., Sutko, J.L., Ellisman, M.H.: Immunohistochemical localization of ryanodine binding proteins in the central nervous system of gymnotiform fish. *Journal of Comparative Neurology* **325**, 135-151 (1992)
- [1-10] Stroh, T., **Zupanc, G.K.H.**: Identification and localization of somatostatin-like immunoreactivity in the cerebellum of gymnotiform fish, *Apteronotus leptorhynchus*. *Neuroscience Letters* **160**, 145-148 (1993)

- [1-11] **Zupanc, G.K.H.**, Maler, L.: Evoked chirping in the weakly electric fish *Apteronotus leptorhynchus*: a quantitative biophysical analysis. *Canadian Journal of Zoology* **71**, 2301-2310 (1993)
- [1-12] **Zupanc, G.K.H.**, Cécyre, D., Maler, L., Zupanc, M.M., Quirion, R.: The distribution of somatostatin binding sites in the brain of gymnotiform fish, *Apteronotus leptorhynchus*. *Journal of Chemical Neuroanatomy* **7**, 49-63 (1994)
- [1-13] **Zupanc, G.K.H.**, Horschke, I.: Proliferation zones in the brain of adult gymnotiform fish: a quantitative mapping study. *Journal of Comparative Neurology* **353**, 213-233 (1995)
- [1-14] Stroh, T., **Zupanc, G.K.H.**: Somatostatin in the prepacemaker nucleus of weakly electric fish, *Apteronotus leptorhynchus*: evidence for a nonsynaptic function. *Brain Research* **674**, 1-14 (1995)
- [1-15] Soutschek, J., **Zupanc, G.K.H.**: Apoptosis as a regulator of cell proliferation in the central posterior/prepacemaker nucleus of adult gymnotiform fish, *Apteronotus leptorhynchus*. *Neuroscience Letters* **202**, 133-136 (1995)
- [1-16] Stroh, T., **Zupanc, G.K.H.**: The postembryonic development of somatostatin immunoreactivity in the central posterior/prepacemaker nucleus of weakly electric fish, *Apteronotus leptorhynchus*: a double-labelling study. *Developmental Brain Research* **93**, 76-87 (1996)
- [1-17] **Zupanc, G.K.H.**, Horschke, I., Ott, R., Rascher, G.B.: Postembryonic development of the cerebellum in gymnotiform fish. *Journal of Comparative Neurology* **370**, 443-464 (1996)
- [1-18] **Zupanc, G.K.H.**, Horschke, I.: Salvage pathway of pyrimidine synthesis: divergence of substrate specificity in two related species of teleost fish. *Comparative Biochemistry and Physiology, Part B: Biochemistry and Molecular Biology* **114**, 269-274 (1996)
- [1-19] **Zupanc, G.K.H.**, Horschke, I.: Tectal input to the central posterior/prepacemaker nucleus of weakly electric fish, *Apteronotus leptorhynchus*: an *in vitro* tract-tracing study. *Brain Research* **739**, 201-209 (1996)
- [1-20] Soutschek, J., **Zupanc, G.K.H.**: Apoptosis in the cerebellum of adult teleost fish, *Apteronotus leptorhynchus*. *Developmental Brain Research* **97**, 279-286 (1996)
- [1-21] Ott, R., **Zupanc, G.K.H.**, Horschke, I.: Long-term survival of postembryonically born cells in the cerebellum of gymnotiform fish, *Apteronotus leptorhynchus*. *Neuroscience Letters* **221**, 185-188 (1997)
- [1-22] **Zupanc, G.K.H.**, Horschke, I., Stroh, T.: Expression of somatostatin in neurons of the central posterior/prepacemaker nucleus projecting to the preglomerular nucleus: immunohistochemical evidence for a non-synaptic function. *Neuroscience Letters* **224**, 123-126 (1997)

- [1-23] **Zupanc, G.K.H.:** The preglomerular nucleus of gymnotiform fish: relay station for conveying information between diencephalon and telencephalon. *Brain Research* **761**, 179-191 (1997)
- [1-24] **Zupanc, G.K.H.,** Horschke, I.: Reciprocal connections between the preglomerular nucleus and the central posterior/prepacemaker nucleus in the diencephalon of weakly electric fish, *Apteronotus leptorhynchus*. *Neuroscience* **80**, 653-667 (1997)
- [1-25] **Zupanc, G.K.H.,** Horschke, I.: Neurons of the posterior subdivision of the nucleus preopticus periventricularis project to the preglomerular nucleus in the weakly electric fish, *Apteronotus leptorhynchus*. *Brain Research* **774**, 106-115 (1997)
- [1-26] **Zupanc, G.K.H.,** Horschke, I.: A distinct population of neurons in the central posterior/prepacemaker nucleus project to the nucleus preopticus periventricularis in the weakly electric gymnotiform fish, *Apteronotus leptorhynchus*. *Brain Research* **776**, 117-125 (1997)
- [1-27] **Zupanc, G.K.H.,** Kompass, K.S., Horschke, I., Ott, R., Schwarz, H.: Apoptosis after injuries in the cerebellum of adult teleost fish. *Experimental Neurology* **152**, 221-230 (1998)
- [1-28] **Zupanc, G.K.H.:** An *in vitro* technique for tracing neuronal connections in the teleost brain. *Brain Research Protocols* **3**, 37-51 (1998)
- [1-29] Siehler, S., **Zupanc, G.K.H.,** Seuwen, K., Hoyer, D.: Characterisation of the fish sst<sub>3</sub> receptor, a member of the SRIF<sub>1</sub> receptor family: atypical pharmacological features. *Neuropharmacology* **38**, 449-462 (1999)
- [1-30] **Zupanc, G.K.H.,** Horschke, I., Lovejoy, D.A.: Corticotropin releasing factor in the brain of the gymnotiform fish, *Apteronotus leptorhynchus*: immunohistochemical studies combined with neuronal tract tracing. *General and Comparative Endocrinology* **114**, 349-364 (1999)
- [1-31] **Zupanc, G.K.H.:** Up-regulation of somatostatin after lesions in the cerebellum of the teleost fish *Apteronotus leptorhynchus*. *Neuroscience Letters* **268**, 135-138 (1999)
- [1-32] **Zupanc, G.K.H.,** Siehler, S., Jones, E.M.C., Seuwen, K., Furuta, H., Hoyer, D., Yano, H.: Molecular cloning and pharmacological characterization of a somatostatin receptor subtype in the gymnotiform fish *Apteronotus albifrons*. *General and Comparative Endocrinology* **115**, 333-345 (1999)
- [1-33] **Zupanc, G.K.H.,** Ott, R.: Cell proliferation after lesions in the cerebellum of adult teleost fish: time course of generation, site of origin, and type of new cells produced. *Experimental Neurology* **160**, 78-87 (1999)
- [1-34] Engler, G., Fogarty, C.M., Banks, J.R., **Zupanc, G.K.H.:** Spontaneous modulations of the electric organ discharge in the weakly electric fish, *Apteronotus leptorhynchus*: a quantitative biophysical and behavioral analysis. *Journal of Comparative Physiology A* **186**, 645-660 (2000)
- [1-35] Clint, S.C., **Zupanc, G.K.H.:** Neuronal regeneration in the cerebellum of adult teleost fish, *Apteronotus leptorhynchus*: guidance of migrating young cells by radial glia. *Developmental*

*Brain Research* **130**, 15-23 (2001)

- [1-36] **Zupanc, G.K.H.**, Clint, S.C.: Radial glia-mediated up-regulation of somatostatin in the regenerating adult fish brain. *Neuroscience Letters* **309**, 149-152 (2001)
- [1-37] Engler, G., **Zupanc, G.K.H.**: Differential production of chirping behavior evoked by electrical stimulation of the weakly electric fish, *Apteronotus leptorhynchus*. *Journal of Comparative Physiology A* **187**, 747-756 (2001)
- [1-38] Zupanc, M.M., Engler, G., Midson, A., Oxberry, H., Hurst, L.A., Symon, M.R., **Zupanc, G.K.H.**: Light-dark changes in spontaneous modulations of the electric organ discharge in the weakly electric fish, *Apteronotus leptorhynchus*. *Animal Behaviour* **62**, 1119-1128 (2001)
- [1-39] Corrêa, S.A.L., **Zupanc, G.K.H.**: Connections between the central posterior/prepacemaker nucleus and hypothalamic areas in the weakly electric fish *Apteronotus leptorhynchus*: evidence for an indirect, but not a direct, link. *Journal of Comparative Neurology* **442**, 348-364 (2002)
- [1-40] Clint, S.C., **Zupanc, G.K.H.**: Up-regulation of vimentin expression during regeneration in the adult fish brain. *NeuroReport* **13**, 317-320 (2002)
- [1-41] **Zupanc, G.K.H.**, Clint, S.C., Takimoto, N., Hughes, A.T.L., Wellbrock, U.M., Meissner, D.: Spatio-temporal distribution of microglia/macrophages during regeneration in the cerebellum of adult teleost fish, *Apteronotus leptorhynchus*: a quantitative analysis. *Brain, Behavior and Evolution* **62**, 31-42 (2003)
- [1-42] Corrêa, S.A.L., **Zupanc, G.K.H.**: Re-evaluation of the afferent connections of the pituitary in the weakly electric fish *Apteronotus leptorhynchus*: an *in vitro* tract-tracing study. *Journal of Comparative Neurology* **470**, 39-49 (2004)
- [1-43] **Zupanc, G.K.H.**, Corrêa, S.A.L.: Reciprocal neural connections between the central posterior/prepacemaker nucleus and nucleus G in the gymnotiform fish, *Apteronotus leptorhynchus*. *Brain, Behavior and Evolution* **65**, 14-25 (2005)
- [1-44] Siehler, S., Nunn, C., **Zupanc, G.K.H.**, Hoyer, D.: Fish somatostatin sst<sub>3</sub> receptor: comparison of radioligand and GTPγS binding, adenylate cyclase and phospholipase C activities reveals different agonist-dependent pharmacological signatures. *Autonomic and Autacoid Pharmacology* **25**, 1-16 (2005)
- [1-45] **Zupanc, G.K.H.**, Hinsch, K., Gage, F.H.: Proliferation, migration, neuronal differentiation, and long-term survival of new cells in the adult brain of zebrafish. *Journal of Comparative Neurology* **488**, 290-319 (2005)
- [1-46] Zupanc, M.M., Wellbrock, U.M., **Zupanc, G.K.H.**: Proteome analysis identifies novel protein candidates involved in regeneration of the cerebellum of teleost fish. *Proteomics* **6**, 677-696 (2006)

- [1-47] **Zupanc, G.K.H.**, Sîrbulescu, R.F., Nichols, A., Ilies, I.V.: Electric interactions through chirping behavior in the weakly electric fish, *Apteronotus leptorhynchus*. *Journal of Comparative Physiology A* **192**, 159-173 (2006)
- [1-48] Zupanc, M.M., **Zupanc, G.K.H.**: Upregulation of calbindin-D<sub>28k</sub> expression during regeneration in the adult fish cerebellum. *Brain Research* **1095**, 26-34 (2006)
- [1-49] Hinsch, K., **Zupanc, G.K.H.**: Isolation, cultivation, and differentiation of neural stem cells from adult fish brain. *Journal of Neuroscience Methods* **158**, 75-88 (2006)
- [1-50] Hinsch, K., **Zupanc, G.K.H.**: Generation and long-term persistence of new neurons in the adult zebrafish brain: a quantitative analysis. *Neuroscience* **146**, 679-696 (2007)
- [1-51] Rajendran, R.S., Zupanc, M.M., Lösche, A., Westra, J., Chun, J., **Zupanc, G.K.H.**: Numerical chromosome variation and mitotic segregation defects in the adult brain of teleost fish. *Developmental Neurobiology* **67**, 1334-1347 (2007)
- [1-52] Rajendran, R.S., Wellbrock, U.M., **Zupanc, G.K.H.**: Apoptotic cell death, long-term persistence, and neuronal differentiation of aneuploid cells generated in the adult brain of teleost fish. *Developmental Neurobiology* **68**, 1257-1268 (2008)
- [1-53] **Zupanc, G.K.H.**, Wellbrock, U.M., Sîrbulescu, R.F., Rajendran, R.S.: Generation, long-term persistence, and neuronal differentiation of cells with nuclear aberrations in the adult zebrafish brain. *Neuroscience* **159**, 1338-1348 (2009)
- [1-54] Sîrbulescu, R.F., Ilieş, I. **Zupanc, G.K.H.**: Structural and functional regeneration after spinal cord injury in the weakly electric teleost fish, *Apteronotus leptorhynchus*. *Journal of Comparative Physiology-A* **195**, 699-714 (2009)
- [1-55] Sîrbulescu, R.F., **Zupanc, G.K.H.**: Dynamics of caspase-3-mediated apoptosis during spinal cord regeneration in the teleost fish, *Apteronotus leptorhynchus*. *Brain Research* **1304**, 14-25 (2009)
- [1-56] Sîrbulescu, R.F., **Zupanc, G.K.H.**: Effect of temperature on spinal cord regeneration in the weakly electric fish, *Apteronotus leptorhynchus*. *Journal of Comparative Physiology-A* **196**, 359-368 (2010)
- [1-57] Sîrbulescu, R.F., **Zupanc, G.K.H.**: Inhibition of caspase-3-mediated apoptosis improves spinal cord repair in a regeneration-competent vertebrate system. *Neuroscience* **171**, 599-612 (2010)
- [1-58] Gama Salgado, J.A., **Zupanc, G.K.H.**: Echo response to chirping in the weakly electric fish, *Apteronotus leptorhynchus*: role of frequency and amplitude modulations. *Canadian Journal of Zoology* (in press)

2. Review Articles

- [2-1] **Zupanc, G.K.H.:** Peptidergic transmission: from morphological correlates to functional implications. *Micron* **27**, 35-91 (1996)
- [2-2] **Zupanc, G.K.H.,** Maler, L.: Neuronal control of behavioral plasticity: the prepacemaker nucleus of weakly electric gymnotiform fish. *Journal of Comparative Physiology A* **180**, 99-111 (1997)
- [2-3] **Zupanc, G.K.H.:** Neurogenesis, cell death and regeneration in the adult gymnotiform brain. *Journal of Experimental Biology* **202**, 1435-1446 (1999)
- [2-4] **Zupanc, G.K.H.,** Lamprecht, J.: Towards a cellular understanding of motivation: structural reorganization and biochemical switching as key mechanisms of behavioral plasticity. *Ethology* **106**, 467-478 (2000)
- [2-5] **Zupanc, G.K.H.:** New cells for old brains: an integrative approach toward the understanding of postnatal development [in German]. *Neuroforum* **6** (4), 263-268 (2000)
- [2-6] **Zupanc, G.K.H.:** A comparative approach towards the understanding of adult neurogenesis. *Brain, Behavior and Evolution* **58**, 246-249 (2001)
- [2-7] **Zupanc, G.K.H.:** Adult neurogenesis and neuronal regeneration in teleost fish. *Brain, Behavior and Evolution* **58**, 250-275 (2001)
- [2-8] **Zupanc, G.K.H.:** From oscillators to modulators: behavioral and neural control of modulations of the electric organ discharge in the gymnotiform fish, *Apteronotus leptorhynchus*. *Journal of Physiology (Paris)* **96**, 459-472 (2002)
- [2-9] **Zupanc, G.K.H.,** Clint, S.C.: Potential role of radial glia in adult neurogenesis of teleost fish. *Glia* **43**, 77-86 (2003)
- [2-10] **Zupanc, G.K.H.,** Meissner, D., Banks, J.R.: Electrocommunication. In: Beckoff, M. (ed.), *Encyclopedia of Animal Behavior, Volume 1*, pp. 350-359. Foreword by Jane Goodall. Greenwood Publishing, Westport/Connecticut (2004)
- [2-11] **Zupanc, G.K.H.,** Bullock, T.H.: From electrogenesis to electroreception: an overview. In: Bullock, T.H., Hopkins, C.D., Popper, A.N., Fay, R.R. (eds.), *Electroreception*, pp. 5-46. Series: Springer Handbook of Auditory Research. Series Editors: Fay, R.R., Popper, A.N. Springer-Verlag, New York (2005)
- [2-12] **Zupanc, G.K.H.,** Zupanc, M.M.: New neurons for the injured brain: mechanisms of neuronal regeneration in adult teleost fish. *Regenerative Medicine* **1**, 207-216 (2006)
- [2-13] **Zupanc, G.K.H.,** Bullock, T.H.: Walter Heiligenberg: the jamming avoidance response and beyond. *Journal of Comparative Physiology A* **192**, 561-572 (2006)
- [2-14] **Zupanc, G.K.H.:** Neurogenesis and neuronal regeneration in the adult fish brain. *Journal of*

*Comparative Physiology A* **192**, 649-670 (2006)

- [2-15] **Zupanc, G.K.H.:** Chapter 2.24: Adult neurogenesis and neuronal regeneration in the teleost fish brain: implication for the evolution of a primitive vertebrate trait. In: Bullock, T.H., Rubenstein, L.R. (eds.), *The Evolution of Nervous Systems in Non-Mammalian Vertebrates*, pp. 485-520. Volume 2. Series: *Evolution of Nervous Systems*. Series Editor: Kaas, J.H. Academic Press, Oxford (2006)
- [2-16] **Zupanc, G.K.H., Zupanc, M.M.:** Fish and humans. In: Bekoff, M. (ed.), *Encyclopedia of Human-Animal Relationships, Volume 4*, pp. 1118-1122. Greenwood Press, Westport/Connecticut, London (2007)
- [2-17] **Zupanc, G.K.H.:** Proteomics of traumatic brain injury and regeneration. *Proteomics — Clinical Applications* **1**, 1362-1372 (2007)
- [2-18] **Zupanc, G.K.H.:** Adult neurogenesis in teleost fish. In: Gage, F.H., Kempermann, G., Song, H., (eds.), *Adult Neurogenesis*, pp. 571-592. Cold Spring Harbor Laboratory Press, Cold Spring Harbor/New York (2008)
- [2-19] **Zupanc, G.K.H., Zupanc, M.M.:** Theodore H. Bullock: pioneer of integrative and comparative neurobiology. *Journal of Comparative Physiology-A* **194**, 119-134 (2008)
- [2-20] Stocum, D.L., **Zupanc, G.K.H.:** Stretching the limits: stem cells in regeneration science. *Developmental Dynamics* **237**, 3648-3671 (2008)
- [2-21] **Zupanc, G.K.H.:** Adult neurogenesis and neuronal regeneration in the brain of teleost fish. *Journal of Physiology (Paris)* **102**, 357-373 (2008)
- [2-22] **Zupanc, G.K.H.:** Electrocommunication. In: Squire, L.R. (ed.), *Encyclopedia of Neuroscience, Volume 3*, pp. 839-848 Academic Press, Oxford (2009)
- [2-23] **Zupanc, G.K.H.:** Towards brain repair: insights from teleost fish. *Seminars in Cell & Developmental Biology* **20**, 683-690 (2009)
- [2-24] **Zupanc, G.K.H.:** Neuroethology. *Scholarpedia* **5**(10), 5305 (2010)
- [2-25] **Zupanc, G.K.H., Zupanc, M.M.:** Proteomic analysis of CNS injury and recovery. In: Clelland, J.D. (ed.), *Genomics, Proteomics, and the Nervous System*. Series: *Advances in Neurobiology*, Volume 2. Springer-Verlag, New York (2011)
- [2-26] Sîrbulescu, R.F., **Zupanc, G.K.H.:** Spinal cord repair in regeneration-competent vertebrates: adult teleost fish as a model system. *Brain Research Reviews* (in press)
- [2-27] **Zupanc, G.K.H.:** Adult neurogenesis in teleost fish. In: Alvarez-Buylla, A., Sawamoto, K., Parent, J.M., Seki, T. (eds.), *Neurogenesis in the Adult Brain*. Springer-Verlag, New York (in press)

### 3. Research Reports

- [3-1] **Zupanc, G.K.H.:** Mechanisms of neuronal plasticity in the postnatal brain: studies in weakly electric fish [in German]. In: Naturwissenschaftliches Institut an der Universität Tübingen in Reutlingen (NMI) (ed.), *Abschlußberichte Helmholtz-Stipendium Neurobiologie, Teil I*, pp. 169-182. Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie (BMBF), Gz: 325-7291-BCT 0516 7, Bonn (1996)

### 4. Papers on Teaching Biology

- [4-1] **Zupanc, G.K.H.:** Environmental influences on the behavior of the convict cichlid [in German]. *Praxis der Naturwissenschaften (Biologie)* **30** (1), 26-32 (1981)
- [4-2] **Zupanc, G.K.H.:** On the plasticity of the sexual behavior of primates [in German]. *Praxis der Naturwissenschaften (Biologie)* **30** (2), 44-52 (1981)
- [4-3] **Zupanc, G.K.H.:** Temperature effects on the behavior of weakly electric fish [in German]. *Biologie in unserer Zeit* **18** (1), 25-30 (1988)
- [4-4] **Zupanc, G.K.H.:** Visual acuity in humans [in German]. *Praxis der Naturwissenschaften (Biologie)* **37** (5), 38-40 (1988)
- [4-5] Altstetter, M.M., **Zupanc, G.K.H.:** Color vision in vertebrates: conditioning experiments in fish [in German]. *Praxis der Naturwissenschaften (Biologie)* **37** (7), 12-22 (1988)
- [4-6] Händel, R., **Zupanc, G.K.H.:** A computer program to quantify social interactions in fish [in German]. *Praxis der Naturwissenschaften (Biologie)* **37** (7), 23-30 (1988)
- [4-7] **Zupanc, G.K.H.:** Color vision in vertebrates: physical, anatomical and physiological aspects [in German]. *Praxis der Naturwissenschaften (Biologie)* **37** (7), 37-45 (1988)
- [4-8] **Zupanc, G.K.H.:** Temperature and behavior: physiological experiments in weakly electric fish [in German]. In: Zupanc, G.K.H. (ed.), *Praktische Verhaltensbiologie*, pp. 166-181. Verlag Paul Parey, Berlin/Hamburg (1988)
- [4-9] **Zupanc, G.K.H.:** An analysis of the behavior and the social dynamics in the convict cichlid [in German]. In: Zupanc, G.K.H. (ed.), *Praktische Verhaltensbiologie*, pp. 193-209. Verlag Paul Parey, Berlin/Hamburg (1988)
- [4-10] **Zupanc, G.K.H.:** Light microscopical approaches in neurobiology [in German]. *Praxis der Naturwissenschaften (Biologie)* **39** (6), 1-9 (1990)
- [4-11] **Zupanc, G.K.H.:** How does the brain control complex behaviors [in German]? *Biologie in unserer Zeit* **25**, 29-36 (1995)

- [4-12] **Zupanc, G.K.H.**, Banks, J.R.: Electric fish: animals with a 'sixth sense'. *Biological Sciences Review* **11** (2), 23-27 (1998)
- [4-13] **Zupanc, G.K.H.**: New cells for old brains. *Biological Sciences Review* **12** (3), 28-32 (2000)
- [4-14] **Zupanc, G.K.H.**, Banks, J.R., Engler, G., Beason, R.C.: Temperature dependence of the electric organ discharge in weakly electric fish. In: Ploger, B.J., Yasukawa, K. (eds.), *Exploring Animal Behavior in Laboratory and Field*, pp. 85-94. Academic Press, San Diego (2003)
- [4-15] **Zupanc, G.K.H.**, Banks, J.R., Engler, G., Beason, R.C.: Temperature dependence of the electric organ discharge in weakly electric fish. In: Ploger, B.J., Yasukawa, K. (eds.), *Teaching Animal Behavior in Laboratory and Field: An Instructor's Manual to Accompany Exploring Animal Behavior in Laboratory and Field*, pp. 32-35. Academic Press, San Diego (2003)

#### 5. Papers on History of Science

- [5-1] Stripf, R., Zupanc, M.M., **Zupanc, G.K.H.**: Creationism in the USA and in Germany [in German]. *Praxis der Naturwissenschaften (Biologie)* **38** (8), 1-8 (1989)

#### 6. Obituaries

- [6-1] **Zupanc, G.K.H.**, Lamprecht, J.: Walter Heiligenberg (1938-1994). *Trends in Neurosciences* **17** (12), 507-508 (1994)
- [6-2] **Zupanc, G.K.H.**: Jürg Lamprecht, 1941-2000. *Ethology* **107**, 673-675 (2001)
- [6-3] **Zupanc, G.K.H.**: Theodore H. Bullock (1915-2005): Trailblazer in neurobiology. *Nature* **439**, 280 (2006)

#### 7. Books

- [7-1] **Zupanc, G.K.H.**: *Fische und ihr Verhalten. Die Erforschung der geheimnisvollen Welt unter Wasser*. Mit einem Geleitwort von Prof. Dr. Arthur Davis Hasler, vorm. Direktor des Laboratory of Limnology der Universität Wisconsin in Madison (USA). 182 pp., ISBN 3-923 880-11-1. Tetra Verlag, Melle (1982)
- [7-2] **Zupanc, G.K.H.**: *Fish and Their Behavior. How Fishes Live - Specially Written for Aquarists*. Preface by Dr. Dr.h.c. Arthur Davis Hasler, Professor Emeritus at the University of Wisconsin in Madison (U.S.A.). 188 pp., ISBN 3-923 880-19-7. Tetra-Press, Melle (1985)
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