

Publications (original publications and reviews)

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2019

Knebel, D., Rillich, R., Nadler, L., Pflüger, H.-J., and Ayali, A. (2019). The Functional Connectivity between the Locust Leg Pattern Generators and the Subesophageal Ganglion Higher Motor Center. **Neuroscience Letters**, 692::77-82

2018

Stolz, T., Diessner, M., Neupert, S., Hess, M., Delgado, E., Pflüger, H.-J., and Schmidt, J. Descending octopaminergic interneurons modulate leg load evoked motor neuron activity in stick insects. (submitted)

Imperadore, P.; Lepore, M.G., Ponte, G., Pflüger, H.-J., and Fiorito, G. Neural pathways identification through neurobiotin backfilling in the common octopus, *Octopus vulgaris*. (submitted)

Kononenko, N.L., Hartfil, S., Willer, J., Ferch, J., Wolfenberger, H. and Pflüger, H.-J. A population of descending tyraminerpic/octopaminergic projection neurons of the insect deutocerebrum. **J. Comp. Neurol.** 2018 Nov 16. doi: 10.1002/cne.24583. [Epub ahead of print]
 PMID: 30444529

Knebel, D., Rillich, J., Pflüger, H.-J., Ayali, A. and Rigosi, E. (2018) Desert locust forelimb control is asymmetric: an *ex-vivo* study. **Curr. Biol.** Nov 19; 28(22):R1290-R1291. doi: 10.1016/j.cub.2018.09.063. Epub 2018 Nov 19.

Pflüger, H.-J. (2018). Die Neurowissenschaftliche Gesellschaft ist Gründungsmitglied des German Brain Council. **Neuroforum** 24(3):223

Sinakevitch, I., Wolff, G., Pflüger, H.-J., Smith, B. (2018). Biogenic Amines and Neuromodulation of Animal Behavior. **E-book, Front. Syst. Neurosci.** (21 articles) <https://www.frontiersin.org/research-topics/4871/biogenic-amines-and-neuromodulation-of-animal-behavior>

Sinakevitch, I., Wolff, G., Pflüger, H.-J., Smith, B. (2018). Biogenic Amines and Neuromodulation of Animal Behavior. Editorial to **Front. Syst. Neurosci.** 12 (Special research topic). doi: 10.3389/fnsys.2018.00031

Stocker, B.; Bochow, C., Damrau, C., Mathejczyk, T., Wolfenberg, H., Colomb, J., Weber, C., Ramesh, N., Duch, C., Biserova, N.; Sigrist, S., Pflüger, H.-J. (2018) Structural and Molecular Properties of Insect Type II Motor Axon Terminals. **Front. Syst. Neurosci.** 12:5. doi: 10.3389/fnsys.2018.00005

Antemann, V., Pass, G.; Pflüger, H.-J. (2018) Octopaminergic innervation and a neurohaemal release site in the antennal heart of the locust *Schistocerca gregaria*. **J. Comp. Physiol. A** 204:131-143. doi: 10.1007/s00359-017-1213-5.

2017

Knebel D; Ayali, A.; Pflüger H.-J., Rillich, J. (2017) Rigidity and flexibility: the central basis of inter leg coordination in the locust. **Front Neural Circuits.** 2017 Jan 11;10:112. doi: 10.3389/fncir.2016.00112. eCollection 2016

Martin C, Gross V, Pflüger, H-J, Stevenson PA, Mayer G (2017) Assessing segmental versus non-segmental features in the ventral nervous system of onychophorans (velvet worms). **BMC Evol Biol.** 2017 Jan 3;17(1):3. doi: 10.1186/s12862-016-0853-3.

Pflüger H-J. Motor pattern selection and initiation in invertebrates with an emphasis on insects. Chapter 7.3. pp 195-223. In: "**Motor control**" (eds. Hooper S and Büschges A), Wiley, August 2017

Pflüger, H.-J., Grillner, S. Introduction to Motor Pattern Selection in Vertebrates and Invertebrates. Chapter 7.1. pp 178 – 180 In: "**Motor control**" (eds. Hooper S and Büschges A), Wiley, August 2017

2014

Mendoza E, Colomb J, Rybak J, Pflüger HJ, Zars, T, Scharff C, Brembs B (2014) Drosophila FoxP mutants are deficient in operant self learning. **PLoS One**, 9(6):1-15, e100648

2013

Mayer G, Martin C, Rüdiger J, Kauschke S, Stevenson PA, Poprawa I, Schill RO, Pflüger H-J, Schlegel M (2013) Selective neuronal staining in tardigrades and onychophorans provides insights into the evolution of segmental ganglia in panarthropods. **BMC Evolutionary Biology** 13:230-245, doi:10.1186/1471-2148-13-230

Pflüger, HJ, Wolf H (2013) Developmental and activity-dependent plasticity of filiform hair receptors in the locust. **Frontiers in Physiology** 4:70 (pp 1-7), doi:10.3389/fphys.2013.00070

Rillich J, Stevenson PA, Pflüger HJ (2013) Flight and walking in locusts – cholinergic co-activation, temporal coupling and its modulation by biogenic amines. **PLoS One** 8(5):1-11, e62899

Pflüger HJ, Sillar KT (2013) Book chapter on "Motor Control", pages 479-524, in CG Galizia, JM Lledo (eds), **Neurosciences – From Molecule to Behavior: A University Textbook**, Springer Verlag, Berlin, Heidelberg, Germany, 2013 (736 pages)

2011

Pflüger H-J, Duch C. (2011) Dynamic neural control of muscle metabolism related to motor behavior. **Physiology** 26:293-303

Pflüger, H-J, Field LH, Nishino H, Currie MJ. (2011) Neuromodulatory unpaired median neurons in the New Zealand tree weta, *Hemideina femorata*. **J Insect Physiol**, 57:1420-1430

Rillich J, Pflüger HJ (2012) Book review: Der Experimentator: Neurowissenschaften (*in German*), appeared in Biospektrum 17 (06):718

2010

Lehmann GU, Berger S, Strauss J, Lehmann AW, Pflüger HJ. (2010) The auditory system of non-calling grasshoppers (Melanoplinae: Podismini) and the evolutionary regression of their tympanal ears. **J Comp Physiol A** 196:807-16

Mayer G, Whittington PM, Sunnucks P, Pflüger HJ. (2010) A revision of brain composition in Onychophora (velvet worms) suggests that the tritocerebrum evolved in arthropods. **BMC Evolutionary Biology** 10:255

Verlinden H, Vleugels R, Marchal, E, Badisco, Pflüger, H-J, Blenau, W, Van den Broeck, J (2010) The role of octopamine in locusts and other insects. **J Insect Physiol** 56:854-867

Verlinden H, Vleugels R, Marchal, E, Badisco, L, Tobback, J, Pflüger, H-J, Blenau, W, Van den Broeck, J (2010) The cloning, phylogenetic relationship and distribution pattern of two new putative GPCR-type octopamine receptors in the desert locust (*Schistocerca gregaria*). **J Insect Physiol** 56:868–875

Münch D, Ott SR, Pflüger HJ (2010) The three dimensional distribution of NO sources in a primary mechanosensory integration centre in the Locust. **J Comp Neurol** 518:2903-2916

Vierk R, Duch C, Pflüger HJ (2010) Postembryonic development of the centrally generated flight pattern in the tobacco hawkmoth, *Manduca sexta*., **J. Comp. Physiol A** 196:37-50

2009

Kononenko, N. L., Wolfenberger, H., Pflüger, H.-J. (2009) Tyramine as an independent transmitter and a precursor of octopamine in the locust central nervous system: An immunocytochemical study. **J. Comp. Neurol.** 512:433-452

Cholewa, J. & Pflüger, H.-J. (2009) Descending unpaired median neurons with bilaterally symmetrical axons in the suboesophageal ganglion of *Manduca sexta* larvae. **Zoology** 112:251-262

Vierk R, Pflüger HJ, Duch C. (2009) Differential effects of octopamine and tyramine on the central pattern generator for *Manduca* flight. **J Comp Physiol A** (2009) 195:265–277

2008

Mentel, T, Weiler, V, Büschges, A., Pflüger, H.-J. (2008) Activity of neuromodulatory neurons during stepping of a single insect leg. **J. Insect Physiol.** 54: 51-61, (electronic publication doi:10.1016/j.jinsphys.2007.08.010

Field, L. H., Duch, C. & Pflüger, H.-J. (2008) Responses of octopaminergic thoracic unpaired median neurons in the locust to visual and mechanosensory signals. **J. Insect Physiol.** 54: 240-254, (electronic publication doi:10.1016/j.jinsphys.2007.09.006)

2007

Ryglewski, S.; Pflüger, H.-J. & Duch, C. (2007) Expanding the Neuron's Calcium Signaling Repertoire: Intracellular Calcium Release via Voltage induced PLC and IP3R Activation. **PLoS Biology** 5(4): 818 - 827

Kononenko, N.L. & Pflüger, H.-J. (2007) Dendritic projections of different types of octopaminergic unpaired median neurons in the locust metathoracic ganglion. **Cell Tissue Res.** 330:179-195 (electronic publication 15-05-2007, DOI 10.1007/s00441-007-0425-3)

Brembs, B., Christiansen, F., Pflüger, H.-J. & Duch, C. (2007) Flight motor performance deficits in flies with genetically altered biogenic amine levels. **J. Neurosci.** 27 (41):11122-11131

Büschges A, Pflüger, H.-J. (2007) Generating rhythmic movement: From microcircuits to complex motor programs. Introductory remarks to Symposium 10, 2007, 7th Göttingen Meeting of the German Neuroscience Society, Supplement to Neuroforum, Feb 2007 (1), vol. 13,

Pflüger, H.-J. (2007) Der Flug der Insekten. Woher kommt die Energie und wie wird er kontrolliert? Fundiert, Heft 1, 2007, pp 50-55 (Science magazine of the Freie Universität Berlin)

Pflüger, H.-J. (2007) Der Flug der Insekten: Wie Heuschrecken ihre Energiezufuhr steuern. Supplement of FU in „Der Tagesspiegel“, 21 June 2007, p. B3

2006

Rosenberg, L. A.; Pflüger, H.-J.; Wegener, G. & Libersat, F. (2006) Wasp venom injected into the prey's brain modulates thoracic identified bioaminergic neurons. **J. Neurobiol.** 66(2):155-168

Heidel; E. & Pflüger, H.-J. (2006) Differential ion current expression in identified subtypes of locust octopaminergic dorsal unpaired median (DUM-) neurons. **European J. Neuroscience** 23: 1189-1206

Skiebe, P., Biserova, N.M., Vedenina, V., Börner, J. & Pflüger, H.-J. (2006) Allatostatin-like immunoreactivity in the abdomen of the locust *Schistocerca gregaria*. **Cell Tissue Res.** 325: 163-174 (first electronic publication 14 March, 2006)

Bullerjahn, A., Mentel, T., Pflüger, H.-J. & Stevenson, P. A. (2006) Nitric oxide: a peripheral neuromodulator in the locust influencing heart-rhythm. **Cell Tissue Res.** 325:345-360 (first electronic publication, 28 March, 2006)

Pflüger, H.-J. & Büschges, A. (2006) Neuromodulation of microcircuits in motor systems of invertebrates. In: S. Grillner and A. Graybiel (eds.) *Microcircuits: the interface between neurons and global brain function*. 2006. **Dahlem Workshop Report 93. Cambridge, MA: The MIT Press**

Kiehn, O., Büschges, A., Duch, C., Grillner, S., Isa, T., Lansner, A., Pflüger, H.-J., Richter, D. W., Sillar, K. T., Smith, J. and Sparks, D. L. (2006) Neuromodulation of Microcircuits in Motor Systems. In: S. Grillner and A. Graybiel (eds.) *Microcircuits: the interface between neurons and global brain function*. 2006. **Dahlem Workshop Report 93. Cambridge, MA: The MIT Press**

Pflüger, H.-J. (2006) Von den Neurowissenschaften erziehen lernen? *Zeitschrift für Erziehungswissenschaft* 9 (Beiheft 5): 43–49

Pflüger, H.-J. (2006) Frischfleisch für den Nachwuchs. Gehirnwäsche bei Insekten: Wie räuberische Wespen das Verhalten ihrer Beute manipulieren. *Der Tagesspiegel*, Nr. 19, 358, 1.11.2006, p. 24

2005

Pflüger, H.-J. & Stevenson, P. A. (2005) Evolutionary aspects of octopaminergic systems with emphasis on arthropods. ***Arthropod Structure and Development*** 34: 379-396

2004

Biserova, N. M. & Pflüger, H.-J. (2004) The ultrastructure of locust pleuroaxillary “steering” muscles in comparison to other skeletal muscles. ***Zoology*** 107: 229-242

Libersat, F. & Pflüger, H.-J. (2004) Monoamines and the orchestration of behavior. ***BioScience*** 54 (1): 17 - 25

Pflüger, H.-J.; Duch, C.; Heidel, E. (2004) The Ernst Florey Memorial Lecture.
Neuromodulatory octopaminergic neurones and their functions during insect motor behaviour. ***Acta Biologica Hungarica*** 55 (1-4): 3-12

Pflüger, H.-J. and Steve Ayan (2004) Georg Büchner, Dramatiker und Morphologe, *Gehirn und Geist* 3/2004, pp. 48-52

Pflüger, H.-J. (2004) Eine Chance für Europa, *Neuroforum* 2004

2003

Mentel, T., Duch, C., Stypa, H., Müller, U., Wegener, G. & Pflüger, H.-J. (2003) Central modulatory neurons control fuel selection in flight muscle of migratory locust. ***J. Neurosci.*** 23: 1109-1113

Bullerjahn, S. & Pflüger, H.-J. (2003) The distribution of putative nitric oxide releasing neurones in the locust abdominal nervous system: a comparison of NADPHd histochemistry and NOS-immunocytochemistry. ***Zoology*** 106: 3-17

Nicht schön, aber alt: In: Geoskop, Geo 12/Dezember 2003, page 233

Obituary Werner Rathmayer, *J. of Muscle Research and Cell Motility* 24 (1), 1-2 (2003)

Nachruf Werner Rathmayer, Neuroforum 2003 and in 2003 Göttingen Neurobiology Conference program book

2002

Pflüger, H.-J. (2002) Georg Büchner, Dramatiker und Morphologe, **NeuroForum** 8 (2), 199-201

2001

Gauglitz, S. & Pflüger, H.-J. (2001) Cholinergic transmission in central synapses of the locust nervous system. **J. Comp. Physiol. A** 187: 825-836

Bräunig, P. & Pflüger, H. -J. (2001) The unpaired median neurons of insects. **Adv. Insect Physiol.** 28: 185-266

Pflüger, H.-J. (2001) Was wir von kleinen Gehirnen lernen können. In: Kosmos Gehirn (eds. H. Kettenmann, M. Gibson), Neurowissenschaftliche Gesellschaft, Berlin 2001, p 14-15

Pflüger, H.-J. (2001) Book review (Lexikon der Neurowissenschaft) in *NeuroForum* 7 (4), p. 143

2000

Bucher, D. & Pflüger, H.-J. (2000) Directional sensitivity of an identified wind-sensitive interneuron during the postembryonic development of the locust. **J. Insect Physiol.** 46: 1545-1556

Bucher, D.; Scholz, M.; Stetter, M.; Obermayer, K. & Pflüger, H.-J. (2000) Correction methods for three-dimensional reconstructions from confocal images: I. Tissue shrinking and axial scaling. **J. Neurosci. Methods** 100: 135-143

Pflüger, H.-J. & Duch, C. (2000) The functional role of octopaminergic neurons in insect motor behavior. **Acta Biologica Hungarica** 51: 343-348

Pflüger, H.-J. (2000) Was wir dem Tintenfisch zu verdanken haben, appeared on 11 October 2000 in „Neue Zürcher Zeitung“ (NZZ) Forschung und Technik, page 73

1999

Duch, C.; Mentel, T. & Pflüger, H.-J. (1999) Distribution and activation of different types of octopaminergic DUM neurons in the locust. **J. Comp. Neurol.** 403, 119-134.

Johnston, R.M., Consoulas, C., Pflüger, H.J. & Levine, R.B. (1999) Patterned activation of unpaired median neurons during fictive crawling in *Manduca* larvae. **J. Exp. Biol.** 202: 103-113.

Pflüger, H.-J. & Field, L.H.D. (1999) A thoracic chordotonal organ in locusts which codes for mechanical and acoustic stimuli. **J. Comp. Physiol. A** 184: 169-183.

Duch, C. & Pflüger, H.-J. (1999) DUM neurons in locust flight: a model system for amine mediated peripheral adjustments to the requirements of a central motor program. **J. Comp. Physiol. A** 184: 489-499

Consoulas, C., Johnston, R.M., Pflüger, H.J. & Levine, R.B. (1999) Peripheral distribution of presynaptic release sites of abdominal motor and modulatory neurons in *Manduca sexta* larvae. **J. Comp. Neurol.** 410: 4-19.

Pflüger, H.-J. (1999) Neuromodulation during motor development and behavior. **Current Opinion Neurobiol.** 9: 683-689

Pflüger, H.-J. & Menzel, R. (1999) Neuroethology, its roots and future. **J. Comp. Physiol. A** 185: 189-392

1998

Meuser, S. & Pflüger, H.-J. (1998) Programmed cell death specifically eliminates one part of a locust pleuroaxillary muscle after imaginal moult. **J. Exp. Biol.** 201, 2367-2382.

1997

Pflüger, H.-J. (1997) Symposium: Neural networks and their ontogenetic changes. In: *Neurobiology: From Membrane to Mind* (eds. H. Waessle & N. Elsner), Proc. 25th Goettingen Neurobiology Meeting, vol. I, 309 - 312, Thieme, Stuttgart

1996

Pflüger, H.-J. (1996) Standpunkt, **NeuroForum** 2 (4), 23-24

1995

Pflüger, H.-J. & Watson, A.H.D. (1995) GABA- and glutamate-like immunoreactivity in central synapses of dorsal unpaired median neurones in the abdominal nerve cord of locusts. **Cell Tissue Res.** 280, 325-333

Burrows, M. & Pflüger, H.-J. (1995) The action of locust neuromodulatory neurons is coupled to specific motor patterns. **J. Neurophysiol.** 74, 347-357

Duch, C. & Pflüger, H.-J. (1995) Motor patterns for horizontal and upside walking and vertical climbing in the locust. **J. exp. Biol.** 198, 1963-1976

Pflüger, H.-J. (1995) Structural dynamic of sensory neurons and muscles during the postembryonic development of locusts. **Verh. Dtsch. Zool. Ges.** 88.2, 119-127

Pflüger, H.-J. & Meuser S. (1995) Development of a mechanosensory pathway in the locust. **Acta Biologica Hungarica** 46 (2-4), 481-483

1994

Stevenson, P.A.; Pflüger, H.-J.; Eckert, M. & Rapus, J. (1994) Octopamine-like immunoreactive neurones in locust genital abdominal ganglia. **Cell Tiss. Res.** 275, 299-308

Stevenson, P.A. & Pflüger, H.-J. (1994) Colocalization of octopamine and FMRFamide related peptide in identified heart projecting (DUM) neurones in the locust revealed by immunocytochemistry. **Brain Res.** 638, 117-125

Watson, A.H.D. & Pflüger, H.-J. (1994) Distribution of input synapses from processes exhibiting GABA- and glutamate-like immunoreactivity onto terminals of prosternal filiform afferents in the locust. **J. comp. Neurol.** 343, 617-629

Pflüger, H.-J.; Hurdelbrink, S.; Czjzek, A. & Burrows, M. (1994) Activity dependent structural dynamics of insect sensory fibres. **J. Neurosci.** 14, 6946-6955

1993

Pflüger, H.-J.; Witten, J.L. & Levine, R.B. (1993) Fate of abdominal ventral unpaired median (VUM) cells during metamorphosis of the hawkmoth, *Manduca sexta*. **J. Comp. Neurol.** 335, 508-522

1992

Ferber, M. & Pflüger, H.-J. (1992) An identified dorsal unpaired median neurone and bilaterally projecting neurones exhibiting bovine pancreatic polypeptide/FMRFamide-like immunoreactivity in abdominal ganglia of the migratory locust. **Cell Tissue Res.** 267, 85-98

Stevenson, P.A.; Pflüger, H.-J.; Eckert, M. & Rapus, J. (1992) Octopamine immunoreactive cell populations in locust ventral nerve cord. **J. Comp. Neurol.** 315, 382-397

Stevenson, P.A. & Pflüger, H.-J. (1992) Evidence for octopaminergic nature of peripherally projecting DUM-cells, but not DUM-interneurons in locusts. In: **Symposia Biologica Hungarica** 43, 189-199

Kalogianni, E. & Pflüger, H.-J. (1992) The Identification of motor and unpaired median neurones innervating the locust oviduct. **J. Exp. Biol.** 168, 177-198

Burrows, M. & Pflüger, H.-J. (1992) Output connections of a wind sensitive interneurone with motor neurones innervating flight steering muscles in the locust. **J. Comp. Physiol A** 171, 437-446

1990

Ferber, M. & Pflüger, H.-J. (1990) Bilaterally projecting neurones in pregenital abdominal ganglia of the locust: Anatomy and peripheral targets. **J. Comp. Neurol.** 302, 447-460

Pflüger, H.-J. & Burrows, M. (1990) Synaptic connections of different strength between windsensitive hairs and an identified projection interneurone in the locust. **Europ. J. Neurosci.** 2, 1040-1050

1989

Watson, A.H.D. & Pflüger, H.-J. (1989) Regional specialisation fuer synaptic input and output on a locust intersegmental interneurone with multiple spike initiating zones. **J. Comp. Neurol.** 279, 515-527

Field, L.H. & Pflüger, H.-J. (1989) The femoral chordotonal organ: A bifunctional orthopteran sense organ? **Comp. Biochem. Physiol.** 93A, 729-743

Book: Neural Mechanisms of Behavior. Proceedings of the 2nd International Congress of Neuroethology. (eds. J. Erber, R. Menzel, H.-J. Pflüger, D. Todt), Thieme, Stuttgart, 1989.

Pflüger, H.-J. (1989) Sensory control of local reflex-movements in locusts. In: Neurobiology of Sensory Systems (eds. R. Naresh Singh & N. Strausfeld), Plenum, New York, 1989, p. 555-566

1988

Pflüger, H.-J. & Watson, A.H.D. (1988) The structure and distribution of Dorsal Unpaired Median (DUM) Neurones in the abdominal nerve cord of male and female locusts. **J. Comp. Neurol.** 268, 329-345

Pflüger, H.-J.; Bräunig, P. & Hustert, R. (1988) The organization of mechanosensory neuropiles in locust thoracic ganglia. **Phil. Trans. Roy. Soc. London B.** 321, 1-26

Burrows, M. & Pflüger, H.-J. (1988) Positive feedback loops from proprioceptors involved in leg movements of the locust. **J. Comp. Physiol. A** 163, 425-440

Pflüger, H.-J. (1988) Wie laufen Tiere? Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin (Hrsg. P. Goetz), (N.F.) 28 Berlin, p 109-120

1987

Pflüger, H.-J. & Burrows, M. (1987) A strand receptor with a central cell body synapses upon spiking local interneurones in the locust. **J. Comp. Physiol. A.** 160, 295-304

Watson, A.H.D. & Pflüger, H.-J. (1987) The distribution of GABA-like immunoreactivity in relation to ganglion structure in the abdominal nerve cord of the locust. **Cell Tissue Res.** 249, 391-402

Clarac, F.; Libersat, F.; Pflüger, H.-J. & Rathmayer, W. (1987) Motor pattern analysis in the shore crab (*Carcinus maenas*) walking freely in water and on land. **J. Exp. Biol.** 133, 395-415

Pflüger, H.-J. (1988) Control of local reflexes in insects. In "Posture and gait: Development, adaptation and modulation" (eds. B. Amblard, A. Berthoz, F. Clarac). Elsevier (Biomedical Div.), p 321-331

Pflüger, H.-J. & Kutsch, W. (1987) Pionier- und Wegweizerzellen im Nervensystem der Insekten: Entstehung, Interaktionen, Aufgaben und Schicksal. **Biologie in unserer Zeit** (BIUZ) 17, 1-8

1986

Pflüger, H.-J.; Elson, R.; Binkle, U.; Schneider, H. (1986) The central nervous organization of the motor neurones to a steering muscle in locusts. **J. Exp. Biol.** 120, 403-420

Elson, R.; Pflüger, H.-J. (1986) The activity of a steering muscle in locusts. **J. Exp. Biol.** 120, 421-441

Burrows, M. & Pflüger, H.-J. (1986) Processing by local interneurons of mechanosensory signals involved in a leg reflex of the locust. **J. of Neuroscience** 6, 2764-2777

Pflüger, H.-J. Von Pionieren und Wegweisern im Nervensystem, appeared on 11 June 1986 in "Neue Zürcher Zeitung" (NZZ). Supplement: Forschung und Technik.

1985

Habilitation

Senso-motorische Interaktionen bei Wanderheuschrecken: Die Aufklärung eines mechanorezeptiven Informationsweges. (Universität Konstanz 1985)

1984

Watson, A.H.D.; Pflüger, H.-J. (1984) The ultrastructure of prosternal sensory hair afferents within the locust central nervous system. **Neuroscience** 11, 269-279

Pflüger, H.-J. (1984) The large fourth abdominal intersegmental interneuron: A new type of windsensitive ventral cord interneuron in locusts. **J. Comp. Neurol.** 222, 343-357

Seyfarth, E.A.; Pflüger, H.-J. (1984) Proprioceptor distribution and control of a muscle reflex in the tibia of spider legs. **J. Neurobiol.** 15, 365-374

1983

Bräunig, P.; Pflüger, H.-J.; Hustert, R. (1983) The specificity of central nervous projections of locust mechanoreceptors. **J. Comp. Neurol.** 218, 197-207

1982

Pflüger, H.-J.; Tautz, J. (1982) Air movement sensitive hairs and interneurons in *Locusta migratoria*. **J. Comp. Physiol.** 145, 369-380

Pflüger, H.-J. (1982) Parasiten gegen Wanderheuschrecken, appeared on 10 February 1982 in Forschungsbeilage Frankfurter Allgemeine Zeitung (FAZ).

1981

Cruse, H.; Pflüger, H.-J. (1981) Is the position of the femur-tibia joint under feedback control in the walking stick insect? **J. Exp. Biol.** 92, 97-107

Bräunig, P.; Hustert, R.; Pflüger, H.-J. (1981) Distribution and specific central projections of mechanoreceptors in the thorax and proximal leg joints of locusts. I. Morphology, location and innervation of internal proprioceptors of pro- and metathorax and their central projections. **Cell Tissue Res.** 216, 57-77

Pflüger, H.-J.; Bräunig, P.; Hustert, R. (1981) Distribution and specific central projections of mechanoreceptors in the thorax and proximal leg joints of locusts. II. The external mechanoreceptors: Hair plates and tactile hairs. **Cell Tissue Res.** 216, 79-96.

Hustert, R.; Pflüger, H.-J.; Bräunig, P. (1981) Distribution and specific central projections of mechanoreceptors in the thorax and proximal leg joints of locusts. III. The external mechanoreceptors: The campaniform sensilla. **Cell Tissue Res.** 216, 97-111

1980

Pflüger, H.-J. (1980a) Central nervous projections of sternal trichoid sensilla in locusts. **Naturwissenschaften** 67, 316-317

Pflüger, H.-J. (1980b) The function of hair sensilla on the locust's leg: The role of tibial hairs. **J. Exp. Biol.** 87, 163-175

1979

Bässler, U.; Pflüger, H.-J. (1979) The control-system of the femur-tibia-joint of the phasmid *Extatosoma tiaratum* and the control of rocking. **J. Comp. Physiol.** 132, 209-215

1978

Pflüger, H.-J.; Burrows, M. (1978a) Locusts use the same basic motor pattern in swimming as in jumping and kicking. **J. Exp. Biol.** 75, 81-93

Pflüger, H.-J.; Burrows, M. (1978b) How the locust dries itself. **J. Exp. Biol.** 75, 95-100

1977

Pflüger, H.-J. (1977) The control of the rocking movements of the phasmid *Carausius morosus* Br. **J. Comp. Physiol.** 120, 181-202

1976

Dissertation (doctoral thesis)

Zur Steuerung der Schaukel-und Laufbewegung bei den Phasmiden *Carausius morosus* Br. und *Extatosoma tiaratum* (W.S. MacLeay). (Universität Kaiserslautern 1976)

1974

Bässler, U.; Cruse, H.; Pflüger, H.-J. (1974) Der Regelkreis des Kniesehnenreflexes bei der Stabheuschrecke *Carausius morosus*. **Kybernetik** 15, 117-125

1973

Staatsexamensarbeit (state examination thesis)

Schaukelbewegungen bei der Stabheuschrecke, *Carausius morosus* Br. (Universität Stuttgart 1973)

Videos:

<http://dasgehirn.info/aktuell/hirnschau/ein-stammbaum-der-nervensysteme-1964> (Video on Evolution of nervous systems on platform www.dasGehirn.info of the German Neuroscience Society, (Neurowissenschaftliche Gesellschaft), in German

<http://www.bio.msu.ru/> (lecture Moscow State University, 3 March 2014)

Updated: October 2018