As time passes by—an editor's farewell

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*Do not wait till you are a setting sun.
It is a maxim of the wise to leave things before things
leave them.*

Balthasar Gracián (1637).

Coming and going is a fundamental principle of life. Sometimes such obvious normality turns into an event and milestone, however, if it concerns the dynamics of one's own life. Effective on January 1st, 2022 I will step down as the Editor-in-Chief of the *Journal of Comparative Physiology A* and hand over the responsibility for the Journal to Günther ZUPANC.

Having been a member of the Editorial Board since 1989 already, I took over Hansjochem AUTRUM's position as the Editor-in-Chief in 1996. Thus, no less than 32 years of editorial service for JCP-A lie behind me and as many as 25 years of being its Editor-in-Chief. A quarter of a century is a long time. I am happy to have had the opportunity of dedicating this time to the vitality and success of JCP-A, always trying to keep the Journal wide open for a broad range of approaches and its scientific standards high. Remarkably, going back in the journal's history (Barth 2014) tells us that both Karl VON FRISCH, the founder of JCP (as *Zeitschrift für vergleichende Physiologie*) together with Alfred KÜHN, and Hansjochem AUTRUM each dedicated an impressive 36 years to the management and welfare of the Journal. Obviously, they took their responsibility seriously and also enjoyed it.

So did I, trying to champion an integrative approach to science and to promote a journal whose contributors keep the entire organism, both invertebrate and vertebrate, in mind even at the molecular level of analysis. The Journal's main focus has been and still is on the mechanisms behind species-specific behavior in an animal's respective species-specific environment. Evolutionary selection pressures are

exerted on the phenotype in its entirety and it is the whole organism which behaves and survives. Being critical about the classical division between morphology and physiology I have been trying to follow Vogel's and Wainwright's (1969) much appreciated motto "Structure without function is a corpse; function without structure is a ghost".

Foto taken 2020 at an International Symposium by the Austrian Academy of Sciences. Reproduced with permission (OeAW)

My 32 years with JCP-A have seen a number of fundamental changes both in science and publishing. The most dramatic ones (the drama being closely associated with its unprecedented speed) all appear to be linked to digitalization and the performance of computers. Data acquisition and processing capabilities now allow us to ask and work on questions which previously simply were out of any practical reach. Along with this fascinating development research became analytically much more complex and more difficult to follow for the non-initiated. Consequently, the proper reviewing of papers often became increasingly demanding and more dependent on the availability of the specialists. Following the rapid advent and progress of the electronic age and the internet, the need for printed issues of the journal decreased dramatically. Hardly any copies of an issue are printed anymore. This is unfortunate for all those still loving to hold the printed text in their hands and to turn

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pages back and forth manually. On the positive side, the Editors and Reviewers do not have to wait for the arrival of snail mail anymore and the news contained in the journal is much easier to access for many and spreads much wider than before.

An Editor-in-Chief has the final say as to what is published or not in a journal. In this regard, I have been responsible for several thousands of manuscripts. Presumably, one needs to be quite passionate about science and scientists to carefully decide on such a pile of manuscripts. Apart from the initial question whether a submission fits with our thematic focus (which is rather broad), the main questions in such a process are of course: is the analysis scientifically rigorous, methodologically sound and does it report something new in a sufficiently lucid way? In addition, the editorial team together with the expert reviewers and their unselfish assistance are expected to help our authors to get their stories published. The evaluation of papers needs to be critical but should also be sensible. Sometimes this is not an easy task. However, I am glad to say that the large majority of authors gratefully accepts constructive criticisms and queries which in the end improve their contributions.

In 2006 we started to have *Special Issues*, highlighting topics of particular interest in regard to JCP-A's thematic focus and/or topics important and interesting but neglected and too far off mainstream and fashionable science. These *Special Issues* are contributions compiled by invited expert Guest Editors. By now our "Special Issue Gallery" (see JCP-A website) lists 19 special issues reflecting a broad spectrum of topics, animal groups, and issues of both general and comparative physiology. Many of the topics highlighted are about sensory and neural systems underlying natural behavior. They still are a core interest of JCP-A at all levels of organization, from molecular to ecological. Examples are the "Visual circuits in arthropod brains", "Insect color and polarization vision", "Insect chemoreception", "Sensory biology of aquatic mammals", "Current topics in bat echolocation", "Insect hearing" and more. Important other *Special Issues* deal with vertebrate hormonal control of behavior, pheromonal communication in vertebrates, and bird migration. Finally, since von Frisch's times bees have been a favorite of JCP-A. They are now represented in our Gallery by a *Special Issue* on stingless bees and their senses and behavior and another one on new aspects of the relationship between insects and flowers. We also published the prestigious *Presidential Symposia* of recent conferences of the International Society for Neuroethology. Our most recent *Special Issue* dealt with arachnid locomotion and kinematics. The two *Special Issues* currently in statu nascendi are about magnetosensation and arthropod functional morphology.

In addition to the *Special Issues* and regular *Review Articles*, which have become increasingly relevant and helpful in times of rapidly shifting interests and ever-increasing specialization and technical complexity, we have started a manuscript type *Review-History*. With the years passing by it has become obvious that much of the fundamental older literature too often is not given the necessary attention anymore. As a result the milestones on the path to modern concepts and knowledge frequently do not receive the attention they deserve. However, being aware of these milestones, helps to evaluate current research and to plan for its future efforts. So far we have had contributions from Rüdiger Wehner (ant navigation and spatial behavior before behaviorism), Heinrich Reichert (the insect brain as an experimental model system), John Dowling (the roles of vitamin A in vision), Alan Grinnell (bat echolocation), Geoffrey Manley (travelling waves and tonotopicity in the inner ear), Bernhard Ronacher (innate releasing mechanisms and fixed action patterns), Heiner Römer (neurophysiology in the wild), and from Adrian Dyer and co-authors on a newly discovered letter from Albert Einstein and the relation of physics to Karl von Frisch's discoveries in biology. The list is growing.

Scientific work will continue to be premature and incomplete and its goals and the route to reach them will always be only partly understood. At the same time, scientists will continue wanting to know more and to understand better. Having enjoyed the fruits of never-ending scientific curiosity for so many years I am optimistic about the future of JCP-A and see its relevance even increasing in times of increased attention to functional biodiversity, epigenetics and adaptedness and adaptation to climate change.

While stepping down from the position of the EIC I am glad and grateful to now know the journal in the experienced hands of Günther ZUPANC. My very best wishes are with him and the future of JCP-A. Let me also take the opportunity to express my sincere gratitude to the present *Editorial Board* for its unfailing support and unselfish commitment: Kentaro ARIKAWA, Bill HANSSON, Uwe HOMBERG, Alison MERCER, Peter NARINS, Hans-Joachim PFLÜGER, Wolfgang RÖSSLER, Eric WARRANT and Günther ZUPANC. I am not forgetting about earlier members of the Editorial Board and of John HILDEBRAND, who left our Editorial Board only recently, after having served the Journal for several decades. Much appreciated as well is the assistance I had from the members of our *Advisory Board* and in particular from the many reviewers from all over the world. Their indispensable expertise and dedication made it possible to clean up the submissions received and to get them ready for publication. Last

but not least I would like to thank my dear wife, Ortrun Barth, for her assistance and Springer Verlag for its support of JCP-A, in particular Drs. Dieter Czeschlik and Lars Körner.

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