

## British Ornithologists' Union Godman Salvin Prize

Theunis Piersma's contribution to ornithology goes far beyond his 500 plus peer-reviewed scientific papers and 14 books, generally focused on migratory birds, to his role in their conservation including via innovative use of the arts as well as influencing policies and management prescriptions. The strength of influence in the scientific and conservation worlds of 'waderologists' is in no small part due to the infectious enthusiasm and energy of the ever-questioning Theunis.

Since 2012 Theunis, a Friesian Dutchman, has held the dual role of Rudi Drent Chair in Global Flyway Ecology at the University of Groningen and Senior Research Leader at the Royal Netherlands Institute for Sea Research (NIOZ). This maximizes the expression of his talents in two institutions with which he has been associated, respectively since 1988 when he began his PhD at Groningen, and 1993 when he moved to the NIOZ as a post-doc.

The Global Flyway Network he established formalizes the fact that Theunis, uniquely, has his wings spread along all the world's main flyways, working with close collaborators and PhD students in each to answer the questions that fascinate him; as well as in his own East-Atlantic Flyway (especially with Black-tailed *Limosa limosa* and Bar-tailed Godwits *L. lapponica*, Red Knot *Calidris canutus*, Ruff *Philomachus pugnax* and Sanderling *Calidris alba*), also the Atlantic (Red Knot) and Pacific (Bar-tailed Godwit, Rock Sandpiper *Calidris ptilocnemis*) Flyways of the Americas, the East-Asian Australasian Flyway (Red and Great Knots

*Calidris tenuirostris*, Black-tailed and Bar-tailed Godwits) and the Central Asian Flyway (Bar-tailed Godwit, Crab Plover *Dromas ardeola*). Other research has included demographic studies to determine population bottlenecks and restoration strategies, and satellite telemetry including determination of ecological connectivity, via the experimental shorebird facility he built at the NIOZ on Texel.

His diverse interests examine an astonishing range of subjects relating to the ecology of migratory birds; he probably has the most holistic understanding of any human of what it means to

be a migratory bird. He is especially well known in the wider scientific community for discoveries combining physiology and ecology, such as the remarkable transformations birds undergo in shrinking and expanding body organs before undertaking migration, as featured in his book *The Flexi-*

*ble Phenotype* written with Jan van Gils.

His fascination with the ecology of the food of his study species – such as the intertidal bivalve *Macoma baltica* for Red Knots and earthworms for Black-tailed Godwits breeding in Dutch agricultural landscapes – has led to discoveries about these invertebrates as riveting as those of their avian predators.

Theunis has promoted the powerful concept of his study species as global ecological sentinels. In the East Asian Australasian Flyway, the work of his team on migratory shorebirds – from Arctic breeding grounds to passage sites in the Chinese

### Theunis Piersma



Yellow and Bohai Seas to Australia and New Zealand where they retreat from the northern winter – has provided the smoking gun regarding the impact of coastal wetland habitat loss in the Yellow Sea on these wader populations. This has helped convince China to make spectacularly positive policy changes in favour of coastal wetland conservation and even begin the process of inscribing large chunks of these remaining habitats as a serial World Heritage Site.

Beside shorebirds, Theunis has also worked on many other species such as Eurasian Spoonbills *Platalea leucorodia* and, inspired by the population nesting on his Friesian home, House Martins *Delichon urbicum*, about which he wrote a popular book in his native Friesian, then translated to Dutch and published in English by the British Trust for Ornithology as *Guests of Summer*. Other books through which he has shared his research results included labours of love such as *Marathon Migrants* and *Invisible Connections: Why Migrating Shorebirds Need the Yellow Sea*, richly illustrated with the photographs of Jan van der Kam.

Theunis has long been aware that science needs to be communicated both within and outside scientific audiences. His digital and online presence takes the form of his Twitter account (@GlobalFlyway), and his research group's website [globalflywaynetwork.org](http://globalflywaynetwork.org) enables the public to follow satellite-tagged birds. He also frequently appears in national and international media creating awareness of the social implications of ecological changes affecting birds and people. His outreach activities include theatre performance art with the musician Sytze Pruikma, including *The Sound and Science of Bird Migration* and *Music of Migration*, which have been performed for example at the opening of the International Congress of the World Wildlife Fund in front of Queen Beatrix of the Netherlands, the renowned Oerol Festival for performing arts on Terschelling, the Netherlands, and to the local community of their study site in Bohai Bay, China.

For approaching four decades Theunis has been a mainstay of the International Wader Study Group (IWSG), serving 15 of those years as Vice-Chair. He deserves much of the credit for turning the IWSG into a truly global organization, with a well-balanced sex and age ratio and inclusive atmosphere, welcoming amateurs and professionals alike. Each year people flock from around the

world to the annual conference. There is no more collaborative group of people in ornithology than the IWSG, nor one that is better at getting things done from local to global, involving logistically and technically challenging fieldwork, innovative land management by conservationists and farmers, influencing hearts and minds and national policies. Theunis is a prime one-man exemplar of this whole package.

Theunis' approach to science combines the pure fascination of a child asking 'Why? How?' with the originality and creativity of an artist mixing media to find ways to express the meaning of these extraordinary migratory birds and their environments. He expects from others the same unstinting devotion to the cause that he gives. This can lead to some stimulating challenges to conservation organizations not delivering at an equivalent pace!

Theunis has long served his national and the wider international ornithological communities, sitting on numerous editorial boards, including as Editor-in-Chief of *Ardea*, the scientific ornithological journal of the Netherlands Ornithological Union since 2014, and on scientific review panels. He has also been involved in organizing many international meetings, such as the Third European Ornithological Congress in 2001, as well as presenting and sharing his own and his team's research at conferences all around the world.

Theunis' contribution has long-been recognized in the Netherlands where he is a household name: the newspaper *Trouw* included him in their Sustainability-Top-100 of leading Dutch individuals; in 2017 he was Knighted in to the Order of the Netherlands Lion by King Willem-Alexander of the Netherlands; he is an Elected Member of the Royal Holland Society of Sciences and Humanities and the Royal Netherlands Academy of Arts and Sciences; and in 2014 he was awarded the 2.5M€ Spinoza Premium, the highest and most prestigious academic prize for Dutch scientists. Internationally, he has been awarded the British Trust for Ornithology Marsh Award for International Ornithology and the Wetlands International Luc Hoffmann Medal for Excellence in Science and Conservation. Perhaps most satisfying, in 2001 a new subspecies of Red Knot, from the New Siberian Islands, was named *Calidris canutus piersmai* in his honour.

The strength and breadth of Theunis' work within ornithology makes him an outstandingly deserving recipient of the BOU Goldman Salvin Prize, and for it to be awarded during his beloved International Wader Study Group's 50th

anniversary conference is a fitting and fine tribute to an exceptional ornithologist.

**Nicola Crockford, Yvonne Verkuil &  
William Sutherland**