Newsletter

Dragonfly Conservation Europe

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First newsletter of DCE

by Roy van Grunsven

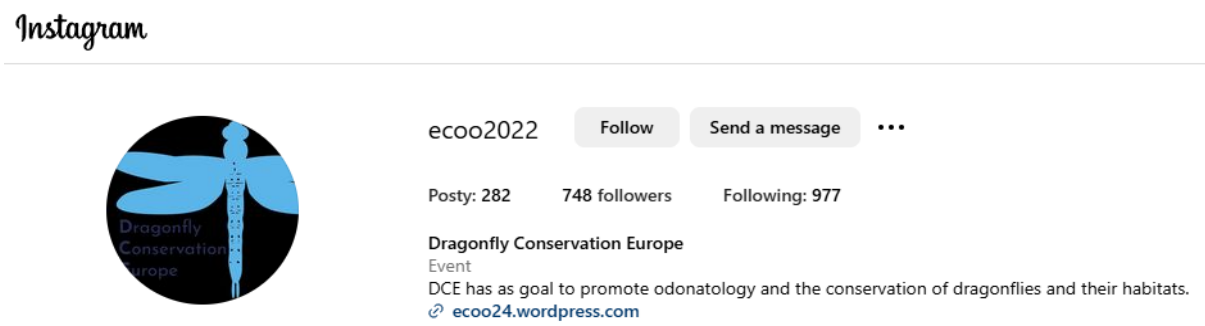
Odonatologists in Europe have been collaborating quite extensively and in general manage to find each other well. However, until now that was mainly through email and meetings such as ECOO. There was no easy way to share interesting news or ask questions to the wider odonatological community.

This newsletter is meant to fill that gap. This can be interesting sightings that are not spectacular enough for a scientific paper, requests for help on something, new books that came out or announcements of (online) meetings. If you have anything you want to share, please contact us through **info@europeandragonflies.com**. The idea is that this newsletter will be published twice a year.

Why do you get this newsletter? For now, we've send it to people that were at ECOO 2024, participated in the A2P-proces and/or were at the meeting on DCE at ICO2023 and others who we thought would be interested. If you do not want to receive this newsletter, or it was forwarded to you, and you want to receive the next one directly in your mailbox let us know through the email address above.

DCE Instagram

by Eleana Kazila



DCE has Instagram account (Dragonfly Conservation Europe). You can follow that in order to find updates of our vibrant European community, and please don't hesitate to send us your photos and stories - we would love to share them!

Founding Dragonfly Conservation Europe

by Roy van Grunsven

Dragonfly Conservation Europe was founded on June 10th, 2024, in Wageningen, the Netherlands. DCE has a goal to promote odonatology and the conservation of dragonflies and their habitat. Primarily this means stimulating collaboration in Europe and helping people where possible. How DCE will do that depends to a large extent on what is considered helpful by the community.

Founding Fathers of DCE (from left: Roy van Grunsven, Klaus - Jürgen Conze, Geert De Knijf)

This newsletter is an example of one of the things we can do. It allows for easy communication with a large number of European odonatologists and makes it possible to share information and ask questions in a very informal and easy manner. The newsletter also includes an agenda with upcoming activities of different societies, especially online meetings that can be of interest to people from other countries as well.

An important goal of DCE is being a central contact point for European odonatology. This is relevant for organisations such as the EU but also for people interested in dragonflies. At the moment there is an informal network and normally you can find the information and person you want with a few emails. That is if you know some people in that network at least. DCE, and its website, can be an easy access point to the European odonatological community. That is helpful for people that are starting with research on or conservation of dragonflies. In the EU the need for biodiversity monitoring is being recognized more and more. Dragonflies are on the list of groups that should be monitored. If the EU wants to develop this further, they will need a partner, an organisation working on dragonflies at the European level, DCE can play this role. For both these roles the network has not changed, and the same people will be involved in the end, we just opened a hatch to the outside world.

To promote collaboration between odonatologists and odonatological societies in Europe, we want to make protocols, and eventually data more accessible. To some extend this will be directly available through the website or the website will give information on what exists and how you can contact the right persons. There is a lot of expertise and in general people are very willing to help, we just need to connect the people with questions with the people with answers. Of course, ECOO will remain to be the main gathering of European odonatologists, and DCE wants to be a home for the network in between ECOOs.

Dragonfly Conservation Europe board:

Chair: Roy van Grunsven

Secretary: Geert De Knijf

Treasurer: Klaus-Jürgen Conze

Conservation projects Coordinators: Geert De Knijf & Marina Vilenica

Scientific Literature: Philippe Lambret

Newsletter Editor: Adam Tarkowski

ECOO Organisator: Adam Tarkowski

Webmaster: Magnus Billqvist

Social Media Coordinator: Eleana Kazila

The 7th European Congress of Odonatology through a first-time participant's eye

by Eleana Kazila

Seville, late June and 72 participants from 23 countries gathered at the Casa de la Ciencia to share ongoing research, project outcomes, and new conservation strategies for odonates. From June 25 to 29, this inspiring venue hosted a remarkable convergence of leading experts, researchers, and enthusiasts of these fascinating flyers and model organisms of freshwater ecosystems.

Scientific Insights and Keynote Highlights

The 7th European Congress of Odonatology featured an integrated lineup of presentations covering applied ecology, physiology, evolutionary biology, behavioral experiments, and of course, nature conservation and the impact of climate change on Odonata. Keynote presentations gave a good overview of the Odonata fauna of Spain, and the invited lectures focused on Mediterranean Odonata and the Doñana National Park which is affected by severe water scarcity issues. The importance of Doñana was further highlighted by the declaration of the importance of the area for aquatic biodiversity conservation, particularly for Odonata. The program also included a presentation of the exploration of Madagascar's Odonata fauna, adding a tropical dimension to the discussions.

New faces - New steps

The congress saw new researchers presenting their work and gaining inspiration for their future research. Notably, there was the first Greek participation, which was of great importance for the growing Greek odonatological community. This coincided with the presentation of the first Red List of Odonata species of Greece, highlighting the rising interest in Odonata conservation in Greece and outlining the next steps, including more conservation initiatives, species-specific research, and the creation of a database and network of experts and volunteers. Also, the congress was the first to host the first presentation of the new European Red List of Odonata which is available for the public. A particularly important part was the official announcement of the newborn Dragonfly Conservation Europe (DCE) foundation. This development was warmly received, as DCE promises to support collaborative efforts on projects and policies for Odonata conservation in Europe.

Organizational Excellence, Community Building and the spirit of openness and collaboration

ECOO seems to be known for its welcoming nature, fostering an open scientific community dedicated to the free exchange of ideas, knowledge, and data.

This spirit of cooperation was evident throughout the congress, fulfilling the participants' expectations and reinforcing the importance of European connections in odonatological research and conservation. The congress provided ample opportunities for networking, both within the conference halls and in informal settings. These connections are crucial for the continued growth and vitality of the odonatological community.

Surely, this positive atmosphere is attributed to the organizing committee and the volunteers who created a welcoming environment, contributing to the overall positive vibes of the event. It is also noteworthy that the ECOO places great importance on covering participation costs for some attendees, providing them with the opportunity to engage in this vibrant scientific community.

As the congress drew to a close, the sentiment among attendees was one of optimism and renewed commitment. Participants left Seville with a wealth of new knowledge, a sense of community, and looking forward for the next gathering in Poland 2026, as the European Congress of Odonatology is not just a conference; it is a celebration of the passion and dedication that drives this unique field.

Science thrives on this openness – the free exchange of ideas, knowledge and data. Sharing is necessary to provide an opportunity for scientific collaboration and this is the state of the art in ECOO.

Photo of ECOO24 participants. Photo: F. Prunier.

Report of the ECOO 2024 field trips in Andalusia, Spain

by Julia Guerra Carande

Congress field trip of Friday 28 June 2024

The ECOO 2024 took place in the city of Sevilla (Sevilla province) and was concluded by a Field Trip to Sierra de Grazalema (Cádiz province). We visited first the upper sections of Majaceite river, starting a bit downstream (El Bosque) then having lunch near its source (Benamahoma). Grazalema is a climate relic from the south of Spain whose huge amount of rainfall and orogeny allow it to host the largest southern population of the Spanish fir (*Abies pinsapo*). The waterside vegetation in Majaceite offered some delightment to our northern fellow naturalists: with a good presence of *Lonicera implexa* and *Smilax aspera* as well as a tree cortege dominated by *Salix pedicellata* and *Fraxinus angustifolia*.

A male of Onychogomphus cazuma. Photo: A. Tańczuk.

Downstream sections from Majaceite river. Photo: J. Fahy.

Regarding dragonflies, *Boyeria irene* exuviae were found everywhere. We also found a few belonging to *Cordulegaster boltonii algirica*, including an emerging female and various *Onychogomphus*. *Boyeria irene* was hanging from the vegetation at the beginning of our walk. A couple of very calm males of *Onychogomphus uncatus* and one *Gomphus simillimus* posed for us on top of *Rubus* blackberry bushes.

The second spot of the day, an urban fountain near the river, surprised us with an exuvia of *Sympetrum sinaiticum* as well as several flying individuals of *Crocothemis erythraea, Orthetrum chrysostigma, Sympetrum fonscolombii* and to the delight of many a male *Anax ephippiger*. Finally, we had lunch in a restaurant next to a sheltered, narrower section of the Majaceite river, where *Calopteryx virgo* were flying and perching on willows.

Additionally, we crossed paths with several interesting species from the Spanish herpetofauna: an Iberian false smooth snake (*Macroprotodon brevis*), a horseshoe whip snake (*Hemorrhois hippocrepis*) and a few Vaucher's wall lizard (*Podarcis vaucheri*); the last two being endemic species from the southern half of Spain and northern Morocco.

Iberian false smooth snake (Macroprotodon brevis). Photo: J. Faye.

A male of Onychogomphus uncatus perching at a Rubus branch. Photo: R. Van Grunsven.

Post-congress tour to the Serranía de Ronda 29 June - 3 July 2024

ECOO 2024 dates allowed us to enjoy the diversity of xerophytic vegetation; from which we could appreciate different stages of blooming and fruiting during this tour. Thus, regarding dragonfly species with “terrestrial” tendencies such as *Onychogomphus costae*, *Platycnemis latipes* or *Selysiothemis nigra*, this offered the opportunity of capturing interesting pictures.

The post-congress trip took us to explore a water catchment which is often considered to retain the last wild rivers from southern Spain: the ríos Guadiaro, Genal and Hozgarganta. Besides, we visited some standing waters in the provinces of Cádiz & Málaga.

Day 1 - Standing waters

Leaving Sevilla, our first stop was just below a dam on the Guadalete river. Most of the dragonfly species were found perching in thistles, mainly *Centaurea calcitrapa*, near the stream. Thus, we had our first observations of *Orthetrum chrysostigma, Platycnemis latipes Ishnura graellsii*.

Female of Platycnemis latipes over Centaurea calcitrapa. Photo: J. Guerra.

Already in Málaga province, we enjoyed the views from the road up to our next stop: a reservoir near Montejaque surrounded by a typical cortege of mediterranean vegetation. To cite some of them, the location was inhabited by *Quercus* oaks, several species of rockroses (*Cistus albidus*, *C. ladanifer*, *C. monspelliensis*), *Lavandula stoechas* and *Cynara humilis*.

Past, present and future organisers of ECOO at Montejaque reservoir. (from left: Damjan Vinko, Florent Prunier, Adam Tarkowski)

The reservoir was more than 5 hectares large and harbored different water depths from deep, rather cold waters beside the dam to shallow, warmer parts in the tail and along the shores. Rushes and sedges were omnipresent in the shallow waters, offering a good diversity of perches and ovipositing places. Many dragonfly species (up to 16) were observed at this spot, among not less than four *Orthetrum* species (*O. trinacria*, *O. chrysostigma*, *O. cancellatum* and *O. brunneum)*. We spotted several tandems of *Sympetrum fonscolombii* and *Ischnura graellsii*, as well as a female *Anax imperator* laying eggs in the emergent vegetation. *Gomphus pulchellus* and the southwestern subspecies *Onychogomphus forcipatus unguiculatus*; along with *Trithemis kirbyi* and *T. annulata* were also present.

Day 2 - Mediterranean river at its best

On this day we visited three different sections along the Guadiaro river, each representing a different aspect of a Mediterranean river in its mid-stretch. The first one was a zone of shallow, rapid waters with barely shaded riversides, the second had deeper and slower flowing waters and mostly sunny shelters; the third combined characters from both previous stops.

Odonatologists waiting for their luck in Guadiaro river. Photo: N. Van Wouwen.

Regarding vegetation, besides large individuals of poplars, willows and ashes, we also found the invasive species *Eucalyptus camaldulensis* and *Arundo donax*. The riparian vegetation offered shelter to dragonflies through tree roots, and perches due to *Tamarix africana* and *Cyperus longus*.

***Oxygastra curtisii* in flight. Photo: A. Tańczuk.**

Immature male of *Orthetrum chrysostigma*. Photo: A. Tańczuk.

As expected, the Guadiaro river was home to *Macromia splendens, Oxygastra curtisii* and *Gomphus graslinii*. Common riverine species as *Onychogomphus uncatus* and *O. chrysostigma* were also present. Yet, our colleagues could enjoy their first observations of *Zygonyx torridus*, very prone to mate in river rapids. Shady areas brought several *Boyeria irene* observations, while *T. annulata* and *T. kirbyi* were ubiquitous on the last spot. Finally, the Zygoptera cortege was as much interesting with high densities of *Platycnemis latipes* and *Calopteryx haemorrhoidalis* as well as some individuals of *Platycnemis acutipennis.*

Lunch place next to the river rapids at Guadiaro river. Photo: D. Vinko.

Day 3 - Small, warm streams

This day focused especially on some warm thermophilic species of small streams and on *Onychogomphus cazuma*, which was only discovered in Andalusia in 2023.

Our first stop in the morning was along a warm, unshaded tiny stream in an open, extensive agricultural landscape. Here we recorded *Orthetrum niditinerve* and *Coenagrion caerulescens* in their favourite habitat. Other *Orthetrum* species (*brunneum, chrysostigma* and *coerulescens*) shared the habitat with them, and (to our surprise) so did *Zygonyx torridus* and *Boyeria irene.* This spot was a very good example of a rivulet in Andalusia!

Observing Orthetrum nitidinerve. Photo: A. Tańczuk.

Mature male of Orthetrum nitidinerve. Photo: J. Guerra.

The *O. cazuma* site is located near the Desfiladero de los Gaitanes, an impressive geological monument in the province of Málaga. This canyon is made of karstic, sedimentary materials and has been created by erosion of the lighter materials of Guadalhorce riverbed. In short: we found impressive views, but not that much of shadow!

After an underground, nearly cavernous break for a picnic, we proceeded (successfully) to search for *O. cazuma* individuals in their single Andalusian know location up to this time (Prunier and De Knijf 2023[1]). This species was only discovered accidentally in 2019 in the east

[1] Prunier F., De Knijf G. 2023. Discovery of a population of Onychogomphus cazuma in Andalusia, Spain. Notulae odonatologicae 10 (2): 60-66.

of Spain. It seems to prefer narrow streams, ditches often close by where water emerges from the rocks. The Andalusian locality is even a tiny stream along a road, just below a hillside characterized by water trickling down. The water flow in the stream is permanent, confirmed by high densities of the fern *Adiantum capillus-veneris*. We luckily found both male and female, as well as some more common species such as *Cordulegaster boltonii*, *Orthetrum coerulescens*, both ovipositing as a freshly emerged female, and *Zygonyx torridus*.

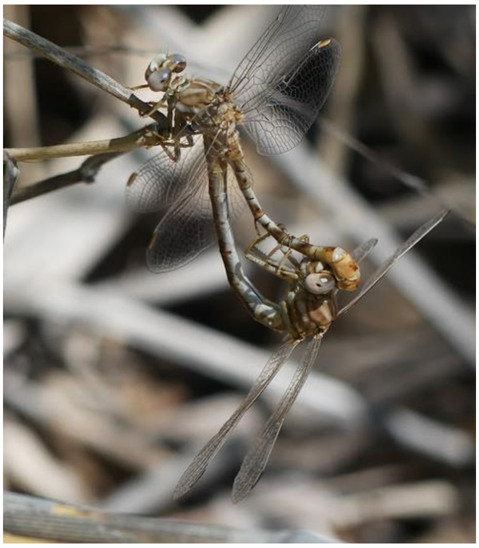
Views on Desfiladero de los Gaitanes. Photo: J. Guerra.

Enjoying a shady break during lunch. Photo: G. De Knijf.

Onychogomphus costae habitat, with Ditricchia viscosa all around. Photo: J. Guerra.

Our last stop of the day was at Guadalhorce river, where we hoped to find O*nychogomphus costae*. Unlike *O. cazuma*, this species inhabits sunny streams and rivers, which encouraged us to be cautious about sun exposure. Nobody was thinking that much about the hot temperatures, however, when we noticed that *O. costae* individuals stayed calm enough to be observed for a while. *O. costae* color scales complement those of its favourite perch from the spot, the woody *Ditricchia viscosa*. Nearby, several individuals of *Brachythemis impartita,* among *Trithemis annulata*, *Zygonyx torridus* and *Platycnemis latipes* delighted the ones who were still thirsty of dragonflies.

Male Onychogomphus cazuma. Photo: A. Tańczuk.



Tandem of Onychogomphus costae.
Photo: A. Tańczuk.

Day 4 - The Strait of Gibraltar and Río Hozgarganta

Sunny views of Laguna Huerta de las Pilas.
Photo: N. Van Wouwen.

Early on this day, we explored the Laguna Huerta de las Pilas near Algeciras, before having lunch with views of Africa. Even if this promise was thrilling enough, the pond presented us with some more interesting species.

Vegetation around our spot belonged to a typical cortege of southwestern Spain: with oaks and olive trees to create some shade for cattle, and a wall of *Rubus* shrubs surrounding the shore. Again, flowering or dry thistles (*Galactites tomentosus, Carlina racemosa*) offered many perches for dragonflies.

Perching male Trithemis annulata on Rumex sp. (left). and male Orthetrum trinacria on emergent vegetation (right). Photo: J. Guerra.

Male of Selysiothemis nigra. Photo: A. Tańczuk.

At Huerta de las Pilas, we recorded *Selysiothemis nigra, Diplacodes lefebvrii* and *O. trinacria*, which were rather easy to enjoy. *Sympetrum meridionale* was present as well, though promptly observed. *Trithemis annulata* were numerous. While *Orthetrum* and *Diplacodes* seemed to prefer to perch on the ground or on emergent vegetation, *Selysiothemis*, *Sympetrum* and *Trithemis* flew on top of terrestrial vegetation. Not surprisingly, *Rumex* species resulted as the perfect, colour-matching frames for *Trithemis annulata* males.

After a windy picnic, as is only possible near the Gibraltar Strait, with superb views of Griffon vultures, we spent the afternoon visiting Hozgarganta river. Water quality and quantity here had suffered from bad management and cattle presence, thus it was not as good as expected. However, we enjoyed views of *Erythromma viridulum* among *Erythromma lindenii* individuals.

Lunch place at Gibraltar Strait. Photo: J. Guerra.

Hozgarganta river. Photo: N. Van Wouwen.

Male of Erythromma viridulum on Polygonum amphibium. Photo: J. Guerra.

Day 5 - Genal river

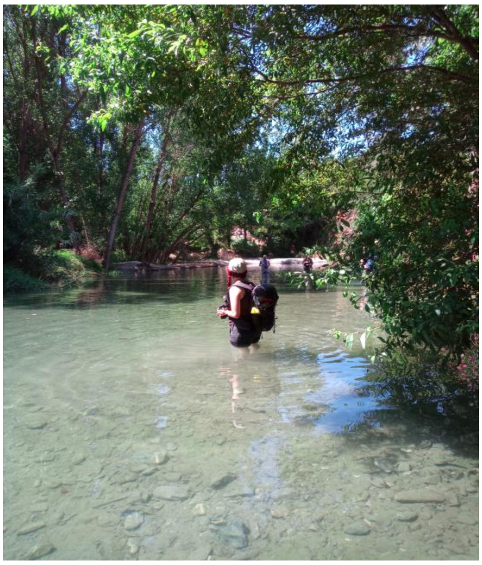
It was 11:30 in the morning, and we were wading in the Genal river, camera in hand, waiting for some dragonflies to show up. To our surprise, intimate areas of our bodies were in contact with Genal waters, even though we expected a water depth of "not more than 20 cm" as was told by Florent.

Vegetation along the Genal was very similar to the Guadiaro river. Along the shores we noticed *Salix pedicellata* and *Fraxinus angustifolia* trees, along with *Scirpus holoschoenus* and *Tamarix africana*. *Arundo donax* and *Eucalyptus camaldulensis* were also sporadically present. However, the habitat was generally fresher due to orography. Even if the source of the Genal river is located not much higher than that of the Guadiaro (690 m high for the former, 500 m high for the latter), the Genal flows within shady, steep walls. The Guadiaro, Genal and Hozgarganta river catchment is of European importance for Odonata thanks to the presence of populations of endemic and threatened species. Although *Macromia splendens* and a handful of riverine dragonflies are still present in low densities, the general conservation state of these rivers is significantly degrading.

First, we explored the most populated area near the entrance. Rather local common species such as *Zygonyx torridus*, *Onychogomphus uncatus*, and the very common *Anax imperator* and *Trthemis kirbyi* were present right from the beginning. We witnessed agonistic behavior from *Zygonyx* against a male *Anax* that entered their territory, the latter being quickly driven away.

Additionally, our colleagues found an emerging individual of *Onychogomphus uncatus* in this area. Walking upstream to visit artificial pools resulted in encountering *Boyeria irene, Platycnemis latipes* and *Orthetrum chrysostigma*.

***Zygonyx torridus* in flight.**
Photo: A. Tańczuk.



Wading upstream in Genal river.
Photo: J. Guerra.

Finally, *Calopteryx haemorrhoidalis* was found flying in the shady, calmer sections. So there we were, camera in hand, waiting for *Macromia splendens* and *Oxygastra curtisii*. Thankfully, our hearts were warmer than the Genal's waters. We knew this was the last field trip of the post-congress tour, but all of our target species had already been recorded on previous days thanks to the titanic effort of Florent, the head guide of the trip.

Then, what did we do? Well… we sat for a while, took some funny photos of the group, and had lunch together. Later, we headed back home, guts feeling bitter, hearts feeling warm, spirits eager to act, and minds set on new ideas. Isn't this the essence of nature conservation, after all?

The post-congress trip team enjoying Genal waters. Photo: F. Prunier.

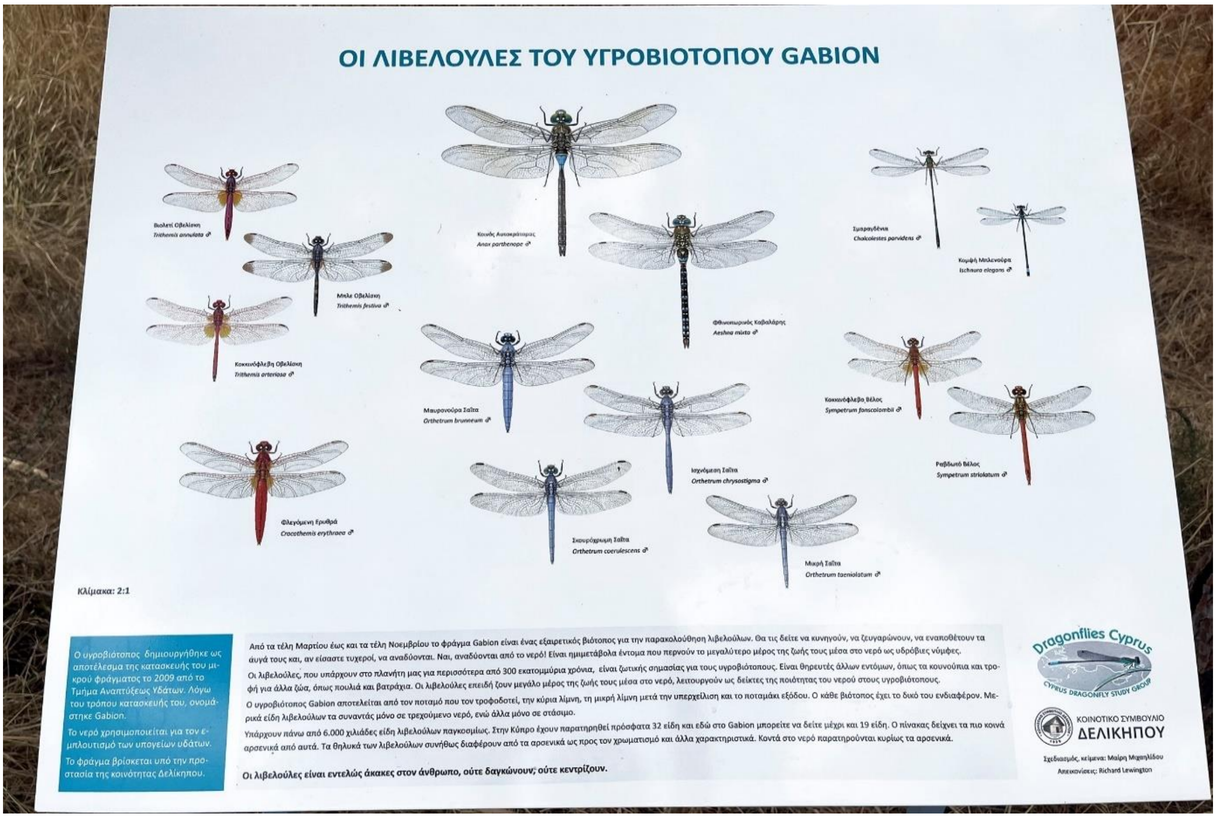
Acknowledgments

I would like to thank Geert De Knijf and Florent Prunier for their guidance and expert advice, Agnieszka and Nick for providing such a great amount of fantastic photos. Thanks to Marta and Cécile for their hard work. Finally, many thanks to Damjan, Eleana, Adam, Charles, Ellie, Erland, Hilde, Per, Zuzana, Arne, Holger and Frankz-Joseph for their marvellous company during this trip.

Popularising Dragonflies on Cyprus

by David and Ros Sparrow

Historically on Cyprus, dragonflies attracted very little interest. Many of the local population are either unaware of their existence or believe that they bite or sting people. We were frequently asked when carrying out field observations what we were doing, and the reply "dragonflies" or the Greek name Λιβελούλες (liveloúles), or even local jargon αεροπλάνakia (little aeroplanes) normally evoked a blank stare or a puzzled look. Early studies on dragonflies on the island (with a couple of exceptions) had been carried out by visitors and mainly during the summer months, and this was also the case for the eastern Mediterranean in general.



Gabion Dam Dragonfly Board

Recognising this gap in our knowledge, the Cyprus Dragonfly Study Group (CDSG) was established in 2012 to carry out systematic island-wide studies of dragonflies. One set of priorities was to set up a monitoring scheme, establish the phenology of the island's dragonfly species and better understand their distribution. A second objective of the group was to raise the awareness of and interest in dragonflies among the general public. A very active Cyprus Dragonflies Facebook page, led by CDSG member Mary Michaelides, has contributed to this. A further significant achievement was the publication in 2020 of the book "Λιβελούλες της Κύπρου - Οδηγός Αναγνώρισης" (The Dragonflies of Cyprus – Identification Guide), designed and written by Mary Michaelides.

The book written in Greek is targeted at young and aspiring nature explorers and covers the 32 species that have permanent populations or breed on Cyprus. Illustrations for the book were by the well-known nature artist, Richard Lewington, and these were supplemented by photographs of the species on Cyprus. BirdLife Cyprus was very supportive of this project and provided sponsorship that allowed a copy of the book to be placed in every Greek-language public school on Cyprus. Hopefully, the students will be avidly reading it!

As most of you will be aware, the CDSG hosted ICO 2023 in June last year in Paphos. During the post-congress field trip, a visit was made to the Gabion Dam in the commune of Delikipos. Prior to the visit, Mary met the council head of the village, Mr. Christakis Nicolaou, and he arranged for the site to be cleaned up prior to our visit. He showed a lot of interest in what we were doing and after explaining the importance of the location for dragonflies, Mary asked if he would be interested in installing a sign showing the dragonfly species that can be observed at Gabion. To Mary's and our surprise, the answer was affirmative. Richard Lewington agreed that his drawing could be used to illustrate the 14 species that have been observed at the dam and Mary provided the design for the board. The council took care of the rest, and the board has now been installed. This will mean that Gabion will now be an even better place to take groups, especially pupils from the area, to educate them on the importance of dragonflies and of water bodies like Gabion. The CDSG is now looking for other important dragonfly sites where it might also be possible to install similar boards.

Mary Michaelides book cover

Gabion Dam

Call for Contributions: Building a Comprehensive Odonata Database for Greece

by Eleana Kazila

It's been almost 10 years since the last attempt to create a comprehensive database of the Odonata fauna of Greece, which was part of the European atlas project. Since then, numerous observations have been made, both by scientists and amateurs.

This year marks a significant milestone for dragonfly research and conservation in Greece, firstly thanks to the completion of the first Red List of threatened Odonata of Greece and secondly thanks to the connection between a small group of Greek scientists and the broader European Odonata community at the European Congress of Odonatology (ECOO). One of the crucial next steps in advancing our understanding and conservation of Odonata in Greece is to build a robust database of records. In order to achieve this, we need the contribution of Odonata enthusiasts!

Why Contribute?

1. **Conservation Efforts**: A robust database will enable researchers and conservationists to identify critical habitats, track species distributions, monitor population trends and develop effective conservation strategies.
2. **Community and Collaboration**: We aim to foster a sense of community among experts, Odonata enthusiasts and researchers in Greece.

How to Contribute?

Organize Observations: Record details in an excel, csv or shp file including:

1. species scientific name,
2. coordinates (longitude and latitude in Decimal Degrees),
3. island or prefecture of Greece from the record locality,
4. date of observation (D-M-Y)
5. observer's name and
6. any comments (like behavior) if necessary or available.

All contributors are highly encouraged to send photographs of observed species.

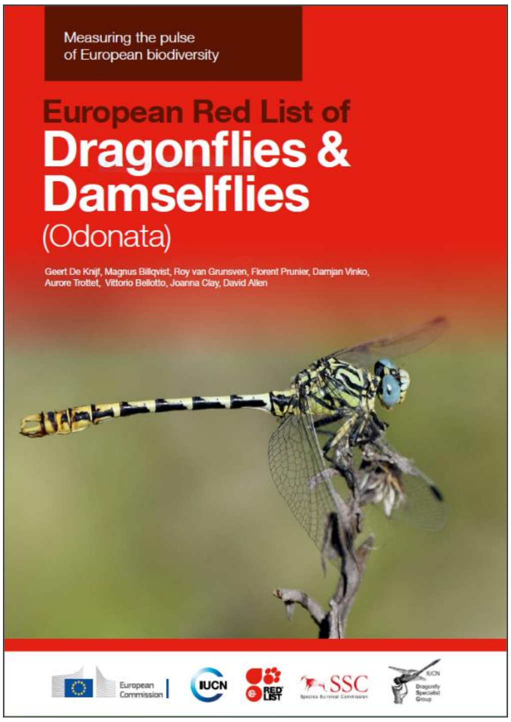
Send your observations to Eleana Kazila (eleanakazila@gmail.com), representative of the Greek Odonatologists and member of the DCE.

Spread the word encouraging other people to participate as the more records we gather the more comprehensive and useful the Greek database will become, supporting our conservation efforts.

Critical Declines in European Odonata Populations Highlighted in New Red List Report

by Geert De Knijf

Fourteen years after the first "European Red List of Dragonflies", the extinction risk of damselflies and dragonflies in Europe has been reassessed with new data and trend analysis. This updated regional Red List provides a comprehensive overview of the conservation status of European Odonata, offering key insights and knowledge for conservation planning and prioritisation: the European Red List of Dragonflies & Damselflies (Odonata).



European Red List of dragonflies (IUCN Publication)

Of the 146 species assessed, 21% are currently threatened with extinction, representing a staggering increase of approximately 50% in the number of endangered Odonata since 2010. Additionally, experts have found that 12% of these species are Near Threatened, meaning they are likely to meet the criteria or endangered status in the near future. The situation is even more dire for species endemic to the European region, with 42% threatened and 21% Near Threatened.

The survival of European dragonflies and damselflies is closely linked to the quality and availability of freshwater habitats. Climate change, pollution, and poor water management are among the top threats to these animals, which have adapted to very specific environmental conditions to complete their life cycles. For example, increased water abstraction for agricultural purposes and more frequent and intense droughts are resulting in habitat destruction throughout the Mediterranean region. Simultaneously, oligotrophic species that rely on nutrient-poor environments suffer from eutrophication and higher temperatures combined with long drought periods. The complex interaction of these threats over the past decade has led to significant population declines for 29% of all European dragonflies and damselflies.

A variety of initiatives are needed to counter current threats and declining trends. The authors stress the importance of monitoring and regional coordination of research efforts to fill current knowledge gaps. Restoration and conservation of small-sized watercourses, especially in the Mediterranean region, should be a priority, along with appropriate management of wetlands. Both local planning and regional policy making play critical roles in these efforts.

This new regional Red List will be complemented by an additional knowledge product focused on translating the information gathered in the Red List into transformative conservation action on the ground. "Moving from Assessment to Planning for Threatened European Dragonflies" is designed to identify and prioritise key actions needed for effective Odonata conservation in the coming five to ten years. Both publications are part of the EU-funded project "Providing Technical and Scientific Support in Measuring the Pulse of European Biodiversity Using the

Red List Index," in which IUCN is leading the update of over 9,500 Red List assessments across multiple species groups with the ultimate goal of evaluating the wellbeing of European biodiversity.

The new European Red List of Odonata can be download here:

https://iucn.org/resources/jointly-published/european-red-list-dragonflies-damselflies-odonata

All assessments are also available on the website of IUCN Red List of Threatened Species, You can directly go to the European assessments using this link:

https://www.iucnredlist.org/search?permalink=753d859f-1f84-4148-9cf3-656b9e8027bf

Otherwise, you can find the species by searching for their scientific or English name. Default, it only shows the global assessments but by removing the selection for global you will also see regional assessments such as the European assessment. Besides the assessment itself it also has a lot of information on distribution and threats. The maps are based on hydrobasins unfortunately and do give an impression of general distribution but are not very accurate. This type of map is obligatory for aquatic species. In the text distribution is often described in more detail.

Short news

Atlas of the Odonata of Austria 2.0

by Werner E. Holzinger, Brigitte Komposch, Andreas Chovanec

The new atlas of Austria's dragonflies should be completed by the end of 2024. Parallel to data analyses and evaluations, we are still collecting final data. We are grateful for any current (and also older) dragonfly records from Austria – so if you still have data from Austria, please send them by email to holzinger@oekoteam.at

Minimum requirements are: species name, location of observation (name of locality plus geographical coordinates, e.g. from Google Maps), date of observation, name of observer. Preferably as an Excel file. Thank you very much!

Project DRAGON

by Martin Jeanmougin

This research project on dragonflies was just launched in 2024 by the French Centre of synthesis and analysis on biodiversity (CESAB). It aims at studying the impacts of human activities on the ecosystems interfacing with terrestrial and aquatic habitats. The Opie-odonata group will support this project by gathering both opportunistic and standardized data on French and European dragonflies in order to detect species' population trends and distribution variations at different scales. Then, we will aim at finding relationships between these trends and anthropogenic pressures, such as climate change or land-use, in order to propose new indicators and tools to the stakeholders involved in the conservation of dragonflies and wetlands in France and Europe.

Link: https://www.fondationbiodiversite.fr/en/the-frb-in-action/programs-and-projects/le-cesab/dragon/

Planned conferences

Tagung der Gesellschaft deutschsprachiger Odonatologen (Conference of the Society of German-speaking Odonatologists (GdO))

Gesellschaft deutschsprachiger Odonatologen will organise the annual meeting of the GDO. The event will take place in Dresden from 14-16 March 2025.

The conference will feature a public lecture by Dr Viola Clausnitzer (Görlitz) & Jens Kipping (Leipzig): ***Africa's flying jewels - dragonfly research in space and time***.

Event location: Andreas Schubert Lecture Hall 120. Contact: GdO2025@tu-dresden.de All information is and will be available via: <https://tinyurl.com/4fhsecaa>

International Congress of Odonatology 2025

The International Congress of Odonatology is being planned for 10-15 August 2025 at Villa de Leyva in Colombia.

The mid-congress tour will take place in the Iguaque National Park (Cloud Forest/Paramo) and the post-congress tour is planned in the Western Cordillera in Tatama National Park (rainforest).

Future information can be found on the WDA website:

https://www.worlddragonfly.org/ico2025

8th European Congress of Odonatology 2026

In 2026, Poland is scheduled to host the 8th European Congress of Odonatology 2026.

The planned date for the congress will be late June/early July. The main part of the event will take place in central Poland in the Mazovia Province.

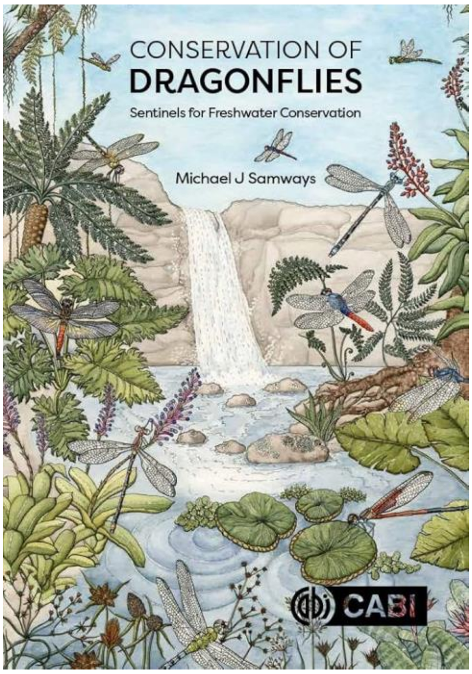
ECOO26 in Poland. Photo: K-J. Conze.

Publications

Conservation of Dragonflies Sentinels for Freshwater Conservation

by Michael Samways

Dragonflies are among the most familiar and popular of all insects, deeply embedded in human cultural history. They are iconic and tell us much about the environments in which we and they live. Their conservation is an important part of biodiversity conservation.



This book will be published in autumn 2024. It is a magnus opus on research on and conservation of dragonflies by the well-known Michael Samways.

One modern dragonfly species is listed as extinct, with many others currently threatened. It is now essential to increase conservation efforts towards saving these threatened species, with strategies now available for doing this. Recovery of dragonfly populations goes hand in hand with improvements to both freshwater conditions and bank vegetation quality. In contrast, some other dragonfly species have benefited greatly from human transformation of the landscape, with artificial ponds in particular, increasing the population levels of many species. In turn, climate change is seeing many geographical range shifts.

Dragonflies are variously sensitive to the health of freshwater systems, and the quality of vegetation along rivers and around ponds. Dragonflies are excellent indicators in these times of great concern over the quality of our freshwater supplies. They enable us to gauge how well we are conserving freshwaters, whether ponds and lakes, streams or rivers. They are also good umbrellas for many other freshwater inhabitants, which altogether reflect the health of a freshwater system.

Conservation of Dragonflies: Sentinels for Freshwater Conservation is for naturalists, citizen scientists, entomologists and conservation scientists, as well as practitioners and policy makers around the world.

PhD-theses

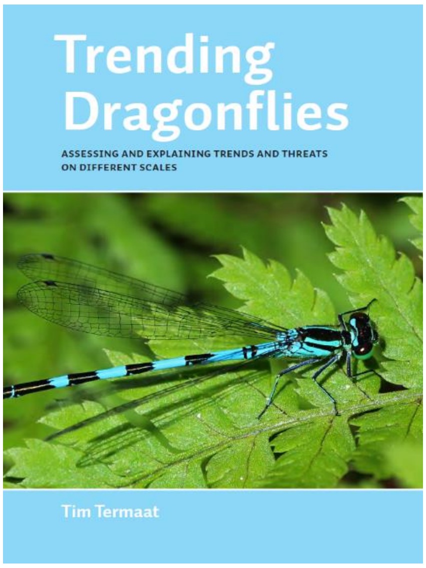
Conservation ecology of the threatened damselfly *Lestes macrostigma* – An integrated life cycle approach.

This PhD thesis was defended in June 2024 by Philippe Lambret. It focused on the ecology of the species' eggs and larvae –key stages in the population dynamic of odonates– through four studies implemented in the Camargue (southern France). The effects of the water regime, of the water salinity level, of aquatic animal interactions and of the types of plant that are used during oviposition were considered. The results of these studies provide some scientific evidence on which one should base conservation management actions targeting the species. They may also help designing temporary brackish pond restoration when using *L. macrostigma* as a flagship species to anchor the programme.

Link: https://tourduvalat.centredoc.fr/doc_num.php?explnum_id=5871

Trending Dragonflies - Assessing and explaining trends and threats on different scales.

This thesis was defended by Tim Termaat in November 2023. The main topic is how to assess trends of dragonflies and how to use them as indicators for freshwater habitats. Occupancy modelling proves to be a suitable method to calculate reliable trends based on opportunistic data. Analysis of data from different European countries highlights the role of climate change in the recent period. For this analysis a Species Temperature Index has been developed. What drives changes depends on the scale you're looking at but can also change with time, for *Coenagrion hastulatum* in the Netherlands the succession of threats has been investigated using surveys of all habitats in 2001, 2015 and the current situation.



Link: https://research.wur.nl/en/publications/trending-dragonflies-assessing-and-explaining-trends-and-threats