

## North Vietnam 2018

### 207 species and a ton of Choco pies!

Led by Tom Kompier and Phil Benstead.

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#### Summary

Our first tour with the incomparable Kompier was definitely an endurance event! Tom's incredible knowledge and experience allowed us to be shuttled from one great spot to another and shown the odonates of this incredible region at a breathtaking pace. This allowed us to compile a staggering list that cumulatively totalled 207 species. This total included an incredible 36 species of gomphid and an introduction for all to a spectacular new family, the chlorogomphids. Our fantastic day at Pia Oac will, I think, live long in all our memories.

Sadly many of the sites we visited were being very rapidly degraded by, often unwise, development and the trip was notable for the near total absence of supporting wildlife such as birds and mammals.

#### Acknowledgements

Thanks to the Umove team for their pre-tour accommodation checking and handling of the tour. The work of our handler (Quynh) and our hard-working driver were much appreciated. Thanks finally to the team for rising to the occasion, coping with the hardships and bumps in the road and remaining cheerful throughout.

#### Daily Diary

##### 2/6 arrival in Ha Noi and/or Tam Dao

Those of us already in Ha Noi headed out early in the morning for Tam Dao. We had a great session before lunch along the Tam Dao 2 road working the puddles and seepages along the way. Our first odonate was a speedy *Chlorogomphus*, zooming up and down the track. Next the delightful *Calicnemia haksik*. Hot on its heels came our first flatwing – *Rhipidolestes owadai*. Wetter areas produced two *Coelicia* species (*ambigua* and *cyanomelas*), as well as *Protosticta nigra* and the amazing *Agriomorpha fusca*. A small shallow pool at the base of a low rock face hosted a gorgeous aeshnid, an egg-laying orange-and-green female *Polycanthagyna erythromelas*. Phil had a brief *Amphigomphus nakamurai* and then found a more obliging *Idionyx carinata* hooked up next to the trail. Puddles attracted four species of *Orthetrum* including *triangulare*.

Sadly the others arrived later from the airport and meanwhile the gatekeeper had woken up and would not let them in! Although importantly they bagged a *Calicnemia haksik* by the gate as they negotiated. This seriously affected their day but they worked the lowland river near the Tay Thien temple and did get some odonates for their troubles.

##### 3/6 transfer to Lang Son, via Huu Lien

Jet-lagged and not a little tired most of us made it to breakfast and onto the bus for the three-hour drive into the limestone karst country near Huu Lien. It became apparent on arrival that overnight rain had pushed water levels up in the low-lying flat areas between the incredible karst limestone ridges all around us. This was to affect our activities at some of the stops made during the day and few escaped a wellyfull of water during the morning session. Tragedy struck when Chris managed to dunk his camera but Benoit came to the rescue with a spare body to see him through the tour.

Our first stop was a great introduction to the quality of the odonate fauna in North Vietnam. Wading along small streams and checking nearby paddyfields the species tally slowly mounted. Both *Copera* species were seen flying side-by-side. A *Gomphidia abbotti* was swiftly

followed by a *Gomphidia kruegeri*. Tom caught a *Macromia* for us and was delighted to find that it was *katae*, a second site for this species, which was described as back in 1993.

Next we tackled a very difficult and rather slippery trail into the limestone karst hills. We put a lot of effort getting in but the fantastic river we found here was rather quiet and we left after brief views of an *Asiagomphus* sp. and our first *Lyriothemis kameliyae*. The lucky few saw a *Coeliccia* nov. 'p' too. Back in the paddy area we enjoyed our only views of *Rhinocypha biforata*, and found our first *Prodasineura autumnalis* and *Pseudagrion pruinosum*. We also started to get to grips with a range of widespread libellulids.

At our next stop we could not cross the two streams required to access the site for *Matticnemis doi*. The river was swollen by the overnight rain and the bridge had come unshipped and was floating in the water. We tried to get round another way but just picked up *Tramea virginia* and our first *Paracercion melanotum*, *Libellago lineata* and *Rhyothemis variegata*.

Moving again we stopped by a bridge and this area gave us all good looks at the impressive *Sinictinogomphus clavatus*, as well as our first *Neurobasis chinensis*. Denied full access to the stream here again due to high water we moved on, this time to walk a track down to the reservoir. *Potamarcha* appeared here for the first time and we all caught up with *Palpopleura sexmaculata*. The outflow stream from the small reservoir was rather good, we found three (!) species of *Paracercion*, including the recently-described *ambiguum*. Gomphids entertained with both *Macrogomphus guilinensis* and *Megalogomphus sommeri* putting on splendid performances. *Asiagomphus auricolor* was less confiding but some people got photos here. *Epophthalmia elegans* zoomed about. Working the banks of the reservoir later we bagged more *Paracercion ambiguum* and also had our first *Pseudocoptera ciliata*. Walking back to the bus Tom found a nice, fresh hooked-up female *Zygonyx iris*.

At our next stop we got rained off pretty quickly but the tiny stream gave the advance party a speedy view of a massive *Tetracanthagyna waterhousei*. We drove on and only stopped by a degraded river briefly that produced a few new odonates – *Pseudagrion rubriceps* and *Zyxomma petiolatum*.

#### 4/6                    Cao Bang

We had an obscenely early start this morning and breakfast was disappointing to say the least... Most of us dozed on the four-hour journey to Cao Bang but we arrived just in time to see the first sun of the morning. Meeting up in the field with James Holden, we worked our first *Chlorogomphus* site for an hour-and-a-half without achieving our primary aim but we found some excellent odos. The easy highlight here was the couple of male *Philosina buchi* – a huge and rather unbelievable damselfly. Also here for some, the equally interesting *Philoganga montana*. *Rhinocypha perforata* males jostled along the edge of the streams. Perched on riverside vegetation we found our first *Dysphaea haomia*. Tom caught us a *Macromia clio*. We all caught up with *Gomphidia kruegeri*. New gomphids popped up at regular intervals. We found teneral *Burmagomphus vermicularis*. *Lamelligomphus camelus* was numerous. The gorgeous green, yellow-tipped *Nihonogomphus thomassoni* was enjoyed for the first time. The number of gomphid genera in Vietnam and the number of species was starting to boggle us all...

Moving to a second location in search of *Chlorogomphus* proved to be a good move. On arrival we immediately became aware that a fantastic *papilio* was patrolling the river. We spent plenty of time drinking in the image of this astonishing dragonfly. I think it was a family tick for all of us. We tried to do justice to this superb creature with our cameras and some got superb flight images. Whilst we were doing this James bagged a first for Vietnam – *Burmagomphus magnus*. What a day, *Philosina* and *Chlorogomphus papilio* under the belt.

Working darker side streams produced a string of new species, we tripped over our first *Euphaea decorata* at the start. Further up the side stream in the shade we found *Protosticta curiosa*, *Protosticta grandis* and *Protosticta nigra*. Whew! James spotted a perched *Periaeschna magdalena* hanging in the shade in a rather inaccessible spot. We all queued for photos. Overhead zoomed a huge *Tetracanthagyna waterhousei* and some of us connected with *Asiagomphus acco* for the first time.

Some of us escaped the heat of the mid-afternoon to go get a coffee in town and then picked up the team and headed back to first site just in time for a brutal rain shower and the mystery gomphid under bridge...

We did a dusk session for gomphids and macromids which produced more *Nihonogomphus* and our first female *Macromia unca*.

## 5/6 Pia Oac

One of the most memorable days of the tour in retrospect. First stop of the day was at a small pond which quickly produced the gorgeous *Calicnemia erythromelas* and also our first *Ceriagrion fallax*. Those who missed it at Tam Dao were pleased to catch up with *Coeliccia ambigua* here, Pia Oac being the only place we saw this species on the tour proper. No time to stop here though and Tom quickly whisked us away to a small stream, dam and forest site that we were to visit repeatedly during the day. This area certainly repaid the frequent visits with different species being seen each time. First up were our first and only *Caliphaea thailandica* and also *Mnais andersoni*. *Protosticta nigra* were found as we searched for our first *Megalestes*.

During our first visit to the small pond on the stream we rescued a rather dazed *Heliogomphus* sp. (awaiting formal description). James netted us a nice *Chlorogomphus piaoacensis*. This whole day was amazing for gomphids and as we walked the trail we stopped to enjoy our first *Leptogomphus elegans*, the amazing and diminutive *Davidius fruhstorferi* and our only *Anisogomphus tamdaoensis*. A nice *Anisopleura qingyuanensis* was bagged as we walked out of the valley.

Tom's next stop was a small stream that quickly produced our first *Archineura*. Crowd control failed here somewhat and we scared off many gomphids, sadly including *Sieboldius nigricolor* (although this was seen by others later). Close by was a small quarry pond heaving with *fallax* and a single pair of *bellona* and holding an incredible suite of species. Here in good numbers was the amazing *Atratothemis reelsi* (think Johnny Cash reincarnated as a dragonfly) and perched quietly on a fern in the corner a superb *Trigomphus carus*. Nearby our first *Mnais mneme*.

Back at the stream, more gomphids with a brief female *Anisogomphus neptunus* and some saw the *Sieboldius*. A male *Phaenandrogomphus tonkinicus* hovered over a small sand spit.

Moving again we tried out a pond down the road and quickly connected with our only *Paracercion v-nigrum* of the tour. A perched female *Pseudothemis zonata* was eagerly papped by the photography squad. In the corner of the pond Tom found our only *Ceriagrion azureum* of the tour but this was quickly supplanted in our affections by the arrival of a male *Orthetrum melania*. It was only later that we realised that we did not have good photos of the *azureum*... Such was the pace of the day. The last new species here was a nice *Tetrathemis platyptera*.

An area of old fishponds gave us our first flight encounter with *Sarasaeschna niisatoi* and a female *Anaciaeschna martini* was egg-laying. *Anax nigrofasciatus* was also present. In the emergent vegetation were our first *Ischnura carpentieri*. Searching up the valley produced a new *Rhipidolestes* – *cyanoflavus*, the first record for Vietnam. Someone bagged a *Periaeschna magdalena* female for in hand photographs. Tom found us the superb *Megalestes distans*. Further up the way we came across a superb perched *Sarasaeschna niisatoi*. A little further on we netted both *Chlorogomphus piaoacensis* and *Sinorogomphus nasutus*. Walking out Mike was awake enough to spot that a male *Sympetrum speciosum* was now on the fish pond.

(At some point in the day Benoit photographed an *Orthetrum internum*, a fact which did not come to light until we got home...)

Taking a break at the end of the day we searched a paddy field area for common libellulids, which included our only record of *Brachydiplax farinosa*. A patrolling *Periaeschna* here was nice and some of us connected with a glorious female *Philoganga vetusta*. Next we had to find our hotel for the night which stretched our transport team somewhat but we eventually arrived and went straight into dinner. Overnight we listened to the calls of a collared scops-owl.

6/6

### Cao Bang

Leaving Pia Oac early we headed back to Cao Bang for the first heat of the morning. Our *Chlorogomphus papilio* site was still producing the goods but we were busy chasing some of the species that we had missed last time. We started with an excellent male *Euthygomphus koxingai*. Further up the river we spotted more *Philoganga montana*. We bagged a *Macromia urania* and finally we found the *Burmagomphus magnus* that James had seen last time we were here. An *Asiagomphus pacificus* was new.

Back at the big bridge we kicked off again with a *Macromia clio*. The river upstream had our first *Euphaea basitincta*. Moving on again we checked the 'old man' river again for a final time and bagged the *Paragomphus* and another *Philosina*. We took a very agreeable duck noodle soup in town before driving on back to our hotel in Ha Noi. On the way we made a superb stop at a roadside stream. Walking this produced a number of great odonates, including *Hylaeothemis clementia*, *Chlorogomphus auratus*, *Chlorogomphus sachiyoae* and *Rhipidolestes owadai*.

Checking in at the hotel in busy Ha Noi, we said our goodbyes to James, he was off back to Cat Tien and the circus. We had all enjoyed his company and silky, youthful netting skills.

7/6

### Ba Vi

Leaving Ha Noi early we headed for the nearby Ba Vi National Park. On arrival the road up to the top was under a large amount of construction which impacted on our enjoyment somewhat but we still enjoyed some great odonates during the day. First up as we walked down from the top car park was our first *Calicnemis miles*. Searching the forest around small streams produced our first *Coeliccia pyriformis* and *Indocnemis orang*. The gorgeous *Coeliccia scutellum* was well received. *Chlorogomphus auratus* buzzed about and were examined in the hand. A shout from Tom indicated something more exciting was afoot and we watched as a female *Chlorogomphus albomarginatus* breezed past.

Searching more forested streams produced *Devadatta ducatrix*, *Protosticta satoi* and our two target *Drepanosticta (hongkongensis and emtra)*. Finally we all got to grips with the splendid *Cryptophaea*, easily the best Euphaeid of the tour. We were still finding new gomphids too with good looks at *Leptogomphus divaricatus* during the day. Eventually we dropped down for cold drinks at the hotel before heading back up for a late afternoon session. At some point Denis managed to get a photograph of a female *Indothemis* on the swimming pool, a fact that came to light until later. The afternoon session did not add much to our list but we did get good looks at a nice green snake (*Cyclophiops major*).

Even a noisy corporate event at the resort could not stop us sleeping after a long and high-mileage day in the field.

8/6

### Xuan Son

This morning we packed up yet again, breakfasted and headed out of the park to drive the short distance to our next site – Xuan Son National Park. We got the impression that this was one of Tom's favourite spots and it certainly produced some great odonates. We stopped at the food stalls and Tom quickly showed us all the best spots in the area. Walking the river under towering limestone cliffs we found a lovely, late *Sinosticta debra*, appearing briefly like a mirage before fading back into the forest. It was to be the only individual of the tour. Magic stuff. Huge *Philoganga vetusta* hung from vines and we found our first *Leptogomphus perforatus*. The *Coeliccia* here were immature *sasamotoi*.

Moving on swiftly we checked the smaller stream and had a brief *Merogomphus pavici*, before moving on again to a small pond. This was hooching with new things including the fantastic *Orolestes selysi*. Those still in touch with the leaders at this point took on the challenge of a rather difficult stream, we survived and got our first looks at Tom's *Gomphidictinus* (yes *kompierei*...), *Heliogomphus scorpio*, several males of the lovely libellulid *Hylaeothemis clementia* and finally our only encounter with the snazzy *Prodasineura croconata*.

Walking under the cool cliffs produced a number of species seeking shelter from the heat of the day. The easy highlight was a huge perched *Tetracanthagyna waterhousei*. But there were many other things to look at! The darker parts of the forest threw up *Protosticta curiosa*. A perched *Phaenandrogomphus* male was quickly eclipsed by an obliging wheel of this species. Our first *Macromidia rapida* hung by the cliff. A single *Bayadera bidentata* was most welcome. Overhead we had our first view of the spectacular *Camacinia harterti*, a species that was to remain unphotographed during the tour, probably because we all became too slack-jawed in wonderment whenever one appeared!

Back on the small stream, Tom succeeded in finding us the glorious flatwing, *Rhinagrion hainanensis*. Back at the pond for a second look we found a single *Cratilla*, a few *bellona* and our first *Orthetrum chrysis*. Stopping for a pit stop back at the bus allowed us to recharge with some cold drinks and produced our first views of *Lyriothemis bivittata* and another *Rhinagrion*. Before heading back into the village to check in we netted a nice *Gomphidictinus perakensis*.

Our homestay was perfectly located and was a favourite place for many on the tour. The beds were rather hard but many of us were starting to feel a little fatigued at this point and enjoyed a little rest during the heat of the day. Tom was undeterred though and went out to recce nearby sites finding two *Gynacantha* (*subinterrupta* and *japonica*)...

We checked Tom's site in the late afternoon and got great views of *Orolestes* and managed to find the *subinterrupta*. We checked the river at dusk for *Macromidia rapida* and *Macromia unca*. By the bus, in the dark a single *Matrona taoi* ended a great day in the field.

## 9/6 Xuan Son

It was a little overcast during our breakfast noodle soup and this state of affairs persisted for much of the morning. We were of course undeterred. First up was a visit to a spot Tom had found before breakfast near our homestay. Here we quickly connected with the currently undescribed *Coeliccia* sp. nov. 'c' (very like *uenoi*) and it transpired that some saw the splendid *Coeliccia chromothorax* whilst we searched. *Agriomorpha* and *Coeliccia pyriformis* were also flying here.

Next stop was the causeway, which was under construction and much disturbed but allowed photography of a few species we were starting to get familiar with, such as *Gomphidia kruegeri* and *Onychothemis*.

Back at Xuan Son, the park was quieter but had its moments. We all had the chance to photograph the territorial *Lyriothemis kameliyae* we found yesterday and catch up with other species we might have missed. Finally before a proper sit-down lunch (!) we went back to the nearby *chromothorax* site to secure it for everyone, which was just as well as these were the only ones we saw during the tour.

Driving on to Nghia Lo we stopped a few times. First we checked a big river crossing, where Tom searched and caught us a couple of *Lamelligomphus vietnamensis*. We also had a nice photo session with a *Burmagomphus vermicularis* here too. Further short stops netted us *Ischnura aurora* on the edge of a small stream and finally just outside Nghia Lo, a lotus pond produced our first *Brachydiplax chalybea* but no *Tholymis* (a species we were doomed to miss on the tour). Finally we reached Nghia Lo and our first two-night stay of a so-far hectic tour.

## 10/6 Khau Pha

Today was our first day with real weather issues and overcast conditions and rain were to dog our activities during the next few days. Our first stop of the day was a small stream that produced the small *Devadatta kompierei*. Further up the road we stopped again by a rocky stream and picked up *Bayadera hatvan*. Another stop and more new species for us with *Calicnemia eximia* and *Euphaea ochracea*.

Our main site of the day was sadly much altered by recent conversion activities, trout farms are popular in the area and a wreaking havoc with natural habitats. But here we met up with

another *Calicnemia – soccifera*. Most of us settled for *Anisopleura qingyuanensis* here but Denis went one better by sneaking in a *yunnanensis*. We worked this area pretty hard and had a really nice flyby by a male *Camacinia harterti* at one point for our troubles. Michael head-butted a rock at one point which made a colourful but thankfully an ultimately minor injury. *Anax nigrofasciatus* patrolled and egg-layed in a small pool, keeping the less energetic members of the team employed. Tom lead a team uphill for a female *Protosticta spinosa* – the only one of the tour.

Dogged by windy and wet weather we headed for the nearby viewpoint and took the world's most expensive coffee looking out over an astonishing rice paddy landscape. Well worth the stop. Drifting downhill we stopped at a river near town at dusk for gomphids but failed to turn up anything exciting.

### 11/6                    **Khau Pha to Sa Pa**

Another day with weather issues, en route to Sa Pa we elected to stop again at some of the sites in Khau Pha that we visited yesterday. This paid off when Tom found us all our only *Bayadera serrata* and higher up the stream some found *hyalina* too. Working a streamside stand of ginger produced a surprise brace of male *Protosticta caroli*, a big northerly range extension. Higher up a small *Trimeresurus* viper watched proceedings. Those working the area around the bus found a lamp that had attracted some amazing species overnight, the huge goat moth (*Xyleutes persona*) and a huge longhorn (a *Neocerambyx*?) were special. Just before we left Phil managed to miss the female *Protosticta spinosa* again! We drove through the afternoon to our new home, the garish hill resort of Sa Pa.

### 12/6                    **Sa Pa**

Terrible weather greeted us this morning but out we went. Our first stop was decidedly cool and wet but we managed to find a female *Calicnemia uenoi*. The top spot for odonates in the Sa Pa area is the trail down to the Golden Stream and Love Waterfalls. Great habitat no doubt but we had to work very hard in the pouring rain today. Despite the incredibly poor conditions, drifting rain and low cloud, Tom kept delivering new odonates. He took us down a small stream and showed us *Megalestes micans* and a new *Caliphaea (confusa)*. A little further on he found us a superb little *Coeliccia* – the recently-described *hoanglienensis* – perhaps only the fourth record ever of this species. The number of *Pantala* here was stunning and we found many bushes festooned with hanging individuals.

Whilst some of us sheltered in an abandoned house, Michael was still out looking for odos and found us a superb *Anotogaster chaoi*, dripping wet and looking miserable. Inspired, Phil checked a nearby stream and found a dead *Mesopodagrion*... Later he found a roosting *Cephalaeschna aipishishi* too. Most by this time were back in the bus. Munching on steamed goeey lunch packets of some description with varying levels of satisfaction (I thought they were excellent...), we headed back down towards town. The *uenoi* site had many males now and we also found our only *Bayadera melanopteryx* here. Checking the reservoir outfall we found more *Caliphaea*, the rain continuing unabated though. As a result many of us sheltered in the nearby shops and bought gifts and drank tea! Our last stop was so windy and wet that few left the bus and so we called it a day at just 1430 and went back to the hotel for a lie-down. In the evening we celebrated Allan's birthday in one of the restaurants in town.

### 13/6                    **Sa Pa to Cuc Phuong**

The day of the big drive arrived, our first purely transfer day that was to see us dropping down out of the mountains, going around Ha Noi and out to Cuc Phuong National Park. We stopped at a possible site for a few missing things but the paddy habitat was not in a sufficient state to support anything exciting. A couple of motorway service stops during the day netted some common species (including our only *Rhodothemis rufa* of the tour) and a few photographic opportunities. The opportunity to sample freeze-dried durian did not pass by either.

Despite taking the road less travelled we managed to get to Cuc Phuong for a dusk session by the lake. Tom whacked us two new aeshnids in the dark; *Heliaeschna uninervulata* and *Gynacantha bayadera*. Also here a fast *Epophthalmia* and another *Brachydiplax chalybea*. A night walk after dinner was very quiet for birds and mammals, but going macro with Marcus produced some great invertebrates. The number of phasmids was astonishing and hawk-moths featured too.

#### 14/6 Cuc Phuong

An enjoyable day with reasonable weather. The habitat was finally exceptional and the streams we worked during the day were special. Tom was out before breakfast and found a *Gynacantha ryukyuensis*.

Our first stream produced the fantastic *Chlorogomphus nakamurai* but getting good photos in flight was to challenge us for the next couple of days. Here too was the peerless new *Coelliccia* (sp. nov. 'p' – yet to be described formally), amongst a jumble of damsels that included *Coelliccia uenoi* and *Protosticta satoi*. Many of us connected with the recently-described *Gomphidictinus tongi* – a new record for the park. Tom netted a female *Merogomphus pavici* for those that missed this species at Xuan Son.

Stopping to check the half-way reservoir produced a flush of new species including *Tamea transmarina* (flying here with *virginia*) and *Agriocnemis lacteola* but we could not find the *Mortonagrion*. We had a quick look at the Bong 'swimming pool' for *Indocnemis* but failed (although Hartwig put in more time and scored). That left a painful walk into the woods hoping for aeshnids. We found a few things here, those with Phil had a brief look at *Gynacantha ryukensis* and it was nice to have time to photograph common species like the incredible *Cryptophaea*. Returning to the reservoir allowed us all to get to grips with *lacteola* and Phil dug out the *Mortonagrion*.

Our dusk attempt for aeshnids around Bong was unsuccessful and we just had time to relocate to the swamp nearer the gate but failed here too.

#### 15/6 Cuc Phuong, Van Long and back to Ha Noi

The last day in the field dawned lovely and good weather was to continue through the day. We headed straight to Bong to try again for *Indocnemis* and this time we did not have to wait long for a patrolling male to arrive. We got great flight shots and then it perched for us, very obliging. Back at the reservoir we all got views of *Tamea transmarina* before we headed for the swamp where Tom had seen *Fukienogomphus prometheus* before breakfast. He quickly located a pair of these splendid creatures and we settled down for leisurely photographic session. Incredibly *Fukienogomphus* was our 24<sup>th</sup> gomphid genus of the trip and this species was our 36<sup>th</sup> and final gomphid of the tour! They evidently enjoy the mud of this former paddyfield and we watched the female egg-laying into our footprints. Nearby a small passerine (tailorbird?) had fallen foul of a spiders web and ghoulishly we watched the spider feeding on the corpse.

With all our realistic targets at Cuc Phuong attained and with a chance of reaching 200 for the tour we headed to nearby Van Long. Here we quickly got to grips with a few missing (and widespread) species to pad out our list; *Pseudagrion australasiae*, *Aethriamanta brevipennis*, *Macrodiplax cora* and *Trithemis pallidinervis*. Job done and an incredible total of 206 species recorded during the tour.

That just left the drive into Ha Noi and the celebratory last supper before Phil was whisked off to the airport on the first flight out of town!

### Odonata recorded in Vietnam between 2<sup>nd</sup> and 15<sup>th</sup> June

*Archineura hetaerinoidea*

Small numbers on streams at Pia Oac, Xuan Son and Khau Pha.

<i>Atrocalopteryx coomani</i>	Denis had one at Ba Vi.
<i>Caliphaea confusa</i>	Recorded at Sa Pa.
<i>Caliphaea thailandica</i>	Recorded at Pia Oac.
<i>Matrona taoi</i>	One at Xuan Son.
<i>Mnais andersoni</i>	Recorded at Pia Oac and Khau Pha.
<i>Mnais mneme</i>	Just one at Pia Oac. More at the stream we checked en route to Ha Noi the next day. Also recorded at Xuan Son.
<i>Neurobasis chinensis</i>	Widespread (eight dates).
<i>Vestalis gracilis</i>	One at Khau Pha for some people.
<i>Libellago lineata</i>	Only at Huu Lien on the first day.
<i>Rhinocypha biforata</i>	Only at Huu Lien on the first day.
<i>Rhinocypha fenestrella</i>	Recorded at Cao Bang, Pia Oac, Xuan Son and Khau Pha.
<i>Rhinocypha perforata</i>	Recorded at Cao Bang, Pia Oac, Xuan Son and Khau Pha.
<i>Anisopleura qingyuanensis</i>	A few at Pia Oac, one at Xuan Son, and a few at Khau Pha on both days.
<i>Anisopleura yunnanensis</i>	Denis had one at Khau Pha.
<i>Bayadera bidentata</i>	A few at Xuan Son on both days.
<i>Bayadera hatvan</i>	Noted in small numbers on both days at Khau Pha.
<i>Bayadera hyalina</i>	Tom and others had one at Khau Pha.
<i>Bayadera melanopteryx</i>	One above Sa Pa.
<i>Bayadera serrata</i>	At least one at Khau Pha.
<i>Cryptophaea vietnamensis</i>	Tom had one at Pia Oac and more the next day at Cao Bang. We all saw some at Ba Vi, Xuan Son and Cuc Phuong.
<i>Dysphaea basitincta</i>	At least one on the second visit to Cao Bang. Another on the river between Xuan Son and Nghia Lo.
<i>Dysphaea haomiaoa</i>	Only recorded at Cao Bang (on both dates).
<i>Euphaea decorata</i>	Cao Bang, Pia Oac, and the rest stop en route to Ha Noi from there. Common at Xuan Son and also recorded at Khau Pha.
<i>Euphaea guerini</i>	Recorded at Xuan Son only, but possibly overlooked elsewhere?
<i>Euphaea masoni</i>	Recorded at Tay Thien, Cao Bang, Pia Oac, Xuan Son, Khau Pha and the site below Sa Pa.
<i>Euphaea ochracea</i>	On one stream at Khau Pha.
<i>Megalestes distans</i>	Recorded only at Pia Oac.
<i>Megalestes micans</i>	Recorded only at Sa Pa.
<i>Lestes praemorsus</i>	Only recorded at Pia Oac.
<i>Orolestes selysi</i>	Common at Xuan Son. Tom recorded this at Cuc Phuong too.
<i>Philoganga montana</i>	Small numbers at sites near Cao Bang on both visits.
<i>Philoganga vetusta</i>	A female at Pia Oac. Small numbers daily at Xuan Son.
<i>Mesopodagrion tibetanum</i>	A freshly dead one in the rain at Sa Pa.
<i>Agriocnemis femina</i>	Widespread, recorded on seven dates.
<i>Agriocnemis lacteola</i>	Recorded only at the small reservoir at Cuc Phuong.
<i>Agriocnemis pygmaea</i>	Recorded on four dates.
<i>Ceriagrion auranticum</i>	Recorded at Huu Lien, Pia Oac, Cao Bang, Xuan Son and Cuc Phuong.
<i>Ceriagrion azureum</i>	One at the <i>melania</i> pond at Pia Oac did not get the attention it deserved.
<i>Ceriagrion bellona</i>	A few at Pia Oac and Xuan Son.
<i>Ceriagrion fallax</i>	Pia Oac, Cao Bang, on the drive back to Ha Noi from Cao Bang and Khau Pha.



<i>Ischnura aurora</i>	Tom recorded this species at Xuan Son. We all had some on the stream between Xuan Son and Nghia Lo the next day.
<i>Ischnura carpentieri</i>	Recorded at Pia Oac, Khau Pha, below Sa Pa and Cuc Phuong.
<i>Ischnura senegalensis</i>	Scattered records on five dates.
<i>Mortonagrion aborense</i>	Michael had this species at Huu Lien. Most of us caught up with this at Cuc Phuong much later.
<i>Paracercion ambiguum</i>	This enigmatic species was seen at the regular site at Huu Lien.
<i>Paracercion calamorum</i>	Recorded in small numbers at Huu Lien, Cuc Phuong and Van Long.
<i>Paracercion melanotum</i>	The commonest of the lilysquatters recorded at Huu Lien and Van Long.
<i>Paracercion v-nigrum</i>	Recorded on the ponds during our day at Pia Oac.
<i>Pseudagrion australasiae</i>	Very small numbers along the causeway at Van Long on the last day.
<i>Pseudagrion microcephalum</i>	Tom and others had this at Huu Lien.
<i>Pseudagrion pruinatum</i>	Recorded at Huu Lien, Cao Bang and Xuan Son.
<i>Pseudagrion rubriceps</i>	Small numbers at Huu Lien and Cuc Phuong.
<i>Pseudagrion spencei</i>	One of the highlights of the first day at Huu Lien was a few of this widespread but rather scarce species.
<i>Calicnemia erythromelas</i>	Only seen at Pia Oac.
<i>Calicnemia eximia</i>	The female at Cao Bang was probably this species. Seen on both days at Khau Pha.
<i>Calicnemia haksik</i>	Many of us managed to see this species during the pre-tour morning at Tam Dao.
<i>Calicnemia miles</i>	Only recorded at Ba Vi NP where it was frequently encountered.
<i>Calicnemia soccifera</i>	Only recorded at Khau Pha.
<i>Calicnemia uenoi</i>	Only recorded at Sa Pa.
<i>Coeliccia ambigua</i>	One male at Tam Dao. Also recorded at Pia Oac.
<i>Coeliccia chromothorax</i>	Two near the homestay at Xuan Son were a trip highlight for some.
<i>Coeliccia hoanglienensis</i>	One perched in the dark and in the driving rain at Sa Pa. A huge highlight.
<i>Coeliccia</i> sp. nov. 'c'	Recorded near the homestay at Xuan Son. Awaiting formal description.
<i>Coeliccia cyanomelas</i>	One male at Tam Dao. Small numbers at Xuan Son.
<i>Coeliccia</i> sp. nov. 'p'	Some had this species at Huu Lien. The rest of us caught up with this fantastic damsel at Cuc Phuong. Awaiting formal description.
<i>Coeliccia pyriformis</i>	Recorded at Ba Vi, Xuan Son, Khau Pha and Cuc Phuong.
<i>Coeliccia sasamotoi</i>	Only recorded at Xuan Son, where frequent on both days.
<i>Coeliccia scutellum</i>	First seen at Ba Vi and then a few daily at Cuc Phuong.
<i>Coeliccia uenoi</i>	A few at the site inside Xuan Son. More at Cuc Phuong.
<i>Pseudocopteryx ciliata</i>	Recorded at Huu Lien, Pia Oac, Cao Bang, Xuan Son and Cuc Phuong.
<i>Copera marginipes</i>	Widespread, recorded on eight dates.
<i>Copera vittata</i>	Small numbers on days at Huu Lien, Cao Bang and Cuc Phuong.
<i>Indocnemis orang</i>	Recorded at Ba Vi and Xuan Son. The form we recorded at Cuc Phuong is different and the subject of some conjecture.
<i>Prodasinia autumnalis</i>	Widespread, recorded on seven dates.

<i>Prodasineura croconota</i>	A few at Xuan Son
<i>Drepanosticta emtrai</i>	Small numbers at Ba Vi and Xuan Son.
<i>Drepanosticta hongkongensis</i>	Present in many of the upper streams at Ba Vi.
<i>Protosticta caroli</i>	Two males at Khau Pha were surprisingly this species. A significant northerly range extension.
<i>Protosticta curiosa</i>	Recorded at Cao Bang and Xuan Son.
<i>Protosticta grandis</i>	Recorded at Cao Bang, Pia Oac, Xuan Son, Khau Pha and Cuc Phuong.
<i>Protosticta nigra</i>	One male at Tam Dao. Thereafter only recorded at Cao Bang and Pia Oac.
<i>Protosticta satoi</i>	Recorded at Ba Vi, Xuan Son and Cuc Phuong.
<i>Protosticta spinosa</i>	Some had a female at Khau Pha (on both days).
<i>Sinosticta debra</i>	A single at Xuan Son was a late-flying bonus.
<i>Agriomorpha fusca</i>	One male at Tam Dao. Present in good numbers at Pia Oac, Ba Vi, Xuan Son, Khau Pha and Cuc Phuong.
<i>Devadatta ducatrix</i>	One female at the stop on the long drive from Cao Bang to Ha Noi. Common at Ba Vi and seen in small numbers at Khau Pha.
<i>Devadatta kompieri</i>	Present on one of the streams at Khau Pha.
<i>Philosina buchi</i>	Seen on both days at Cao Bang. A trip highlight for all.
<i>Rhinagrion hainanense</i>	Two on the first day at Xuan Son. One the next day there too. One at Cuc Phuong for Tom.
<i>Rhipidolestes cyanoflavus</i>	The <i>Rhipidolestes</i> at Pia Oac was this species, a new record for Vietnam.
<i>Rhipidolestes jucundus</i>	The <i>Rhipidolestes</i> caught by Tom at Sa Pa was not <i>owadai</i> and looks like this species, this represents a new record for the country.
<i>Rhipidolestes owadai</i>	Seen first at Tam Dao, and then at the stop on the long drive from Cao Bang to Ha Noi. Also at Ba Vi and Khau Pha.
<i>Anaciaeschna martini</i>	Several at Pia Oac in ponds.
<i>Anax guttatus</i>	Odd singles at Huu Lien, Cao Bang, Xuan Son and Cuc Phuong.
<i>Anax nigrofasciatus</i>	Recorded at ponds at Pia Oac and Khau Pha.
<i>Cephalaeschna aipishishi</i>	Phil had one at Sa Pa in the pouring rain.
<i>Gynacantha basiguttata</i>	Tom had one at Huu Lien.
<i>Gynacantha bayadera</i>	Tom netted one at Cuc Phuong at dusk on the first evening.
<i>Gynacantha japonica</i>	Tom had some at Xuan Son.
<i>Gynacantha ryukyensis</i>	Tom had one after dawn at Cuc Phuong. Phil had one roosting in bamboo there the same day.
<i>Gynacantha subinterrupta</i>	A teneral at Huu Lien. Good looks at a few at Xuan Son. Also recorded at Cuc Phuong.
<i>Heliaeschna uninervulata</i>	Two records at Cuc Phuong NP, the first for north Vietnam.
<i>Periaeschna magdalena</i>	A few at Cao Bang, Pia Oac and en route to Nghia Lo.
<i>Petaliaeschna tomokunii</i>	An egg-laying female at Pia Oac at dusk.
<i>Planaeschna</i> sp. nov. 'pf'	One hung beautifully in bamboo for us at Pia Oac. Awaiting formal description.
<i>Polycanthagyna erythromelas</i>	Egg-laying female at Tam Dao. Males recorded at Cao Bang and Ba Vi.
<i>Sarasaeschna niisatoi</i>	Several at Pia Oac, including one magical 'hung-up' individual.
<i>Tetracanthagyna waterhousei</i>	Singles in flight at Huu Lien and Cao Bang. One male perched briefly at Xuan Son. A few records at Cuc Phuong.
<i>Amphigomphus nakamurai</i>	One male at Tam Dao for Phil. We had another at Pia Oac.

<i>Anisogomphus neptunus</i>	A female at Pia Oac.
<i>Anisogomphus tamdaoensis</i>	Recorded at Pia Oac.
<i>Asiagomphus acco</i>	Recorded at Cao Bang, Pia Oac and Xuan Son.
<i>Asiagomphus auricolor</i>	Recorded at Huu Lien and Cuc Phuong.
<i>Asiagomphus pacificus</i>	Only on the second visit to Cao Bang.
<i>Burmagomphus divaricatus</i>	Denis took a photo of one on our second visit to Cao Bang.
<i>Burmagomphus magnus</i>	Initially found by James, the individual(s) seen on one of the streams near Cao Bang on both visits constituted the first records for Vietnam.
<i>Burmagomphus vermicularis</i>	Recorded at Cao Bang and streams checked between Xuan Son and Nghia Lo.
<i>Davidius fruhstorferi</i>	Frequently encountered on our day at Pia Oac.
<i>Euthygomphus koxingai</i>	One on the second visit to Cao Bang.
<i>Fukienogomphus prometheus</i>	A male and a female of this mud-loving species in the long-abandoned cultivation within Cuc Phuong NP:
<i>Gomphidia abbotti</i>	One or two at Huu Lien on the first day.
<i>Gomphidia kruegeri</i>	Recorded at Huu Lien, Cao Bang and Xuan Son.
<i>Gomphidictinus kompierei</i>	Two at Xuan Son.
<i>Gomphidictinus perakensis</i>	Singles at Xuan Son on both days.
<i>Gomphidictinus tongi</i>	We had a few individuals of this newly-described gomphid at Cuc Phuong NP, the first records for the park.
<i>Heliogomphus scorpio</i>	Recorded at Xuan Son.
<i>Heliogomphus</i> sp.	Recorded at Pia Oac, Ba Vi, Xuan Son and Khau Pha. Awaiting formal description.
<i>Ictinogomphus pertinax</i>	Widespread (eight dates).
<i>Labrogomphus torvus</i>	Single seen by some on the second visit to Cao Bang.
<i>Lamelligomphus camelus</i>	Common at Cao Bang and Xuan Son and a high one at Khau Pha.
<i>Lamelligomphus vietnamensis</i>	Two caught in the river between Xuan Son and Nghia Lo.
<i>Leptogomphus divaricatus</i>	Recorded at Ba Vi and Xuan Son.
<i>Leptogomphus elegans</i>	Recorded at Pia Oac and Ba Vi.
<i>Leptogomphus perforatus</i>	Recorded at Xuan Son and Cuc Phuong.
<i>Macrogomphus guilinensis</i>	Small numbers at Huu Lien and Cuc Phuong.
<i>Megalogomphus sommeri</i>	Recorded at Huu Lien and Cao Bang.
<i>Merogomphus pavici</i>	One male at Xuan Son. A female netted at Cuc Phuong.
<i>Nepogomphus walli</i>	James had this at Cao Bang on the second visit.
<i>Nihonogomphus thomassoni</i>	One of the gomphid highlights at Cao Bang.
<i>Paragomphus capricornis</i>	One at Cao Bang on the second visit was the only one we saw.
<i>Phaenandrogomphus tonkinicus</i>	Recorded in very small numbers at Pia Oac, commoner at Xuan Son.
<i>Sieboldius nigricolor</i>	Tom and James had a single at Pia Oac.
<i>Sinictinogomphus clavatus</i>	Recorded at Tay Thien, Huu Lien, Pia Oac, Xuan Son, Cuc Phuong and Van Long.
<i>Trigomphus carus</i>	One on the <i>Atratothemis</i> pond at Pia Oac.
<i>Chlorogomphus albomarginatus</i>	A female all too briefly in flight at Ba Vi.
<i>Chlorogomphus auratus</i>	Recorded at the site on the way to Ha Noi from Cao Bang and at Ba Vi.
<i>Chlorogomphus nakamurai</i>	Two males patrolling a stream at Cuc Phuong on both days.
<i>Chlorogomphus papilio</i>	This stunning species was recorded on both visits to Cao Bang.
<i>Chlorogomphus piaocensis</i>	Only at Pia Oac.

<i>Chlorogomphus sachiyoae</i>	A few at Cao Bang and Xuan Son.
<i>Sinorogomphus nasutus</i>	Recorded only at Pia Oac.
<i>Anotogaster chaoi</i>	One hanging in the rain at Sa Pa.
<i>Anotogaster klossi</i>	Very poor and brief views in flight at Pia Oac.
<i>Epophthalmia elegans</i>	Small numbers at Huu Lien, Pia Oac and Cuc Phuong.
<i>Macromia clio</i>	Recorded on both dates at Cao Bang.
<i>Macromia katae</i>	One male at Huu Lien, a new site for this recently-described species.
<i>Macromia malleifera</i>	Recorded only at Xuan Son.
<i>Macromia moorei</i>	Recorded at Cao Bang, Pia Oac and Khau Pha.
<i>Macromia pinratani</i>	A few at Tam Dao and Ba Vi.
<i>Macromia unca</i>	Females at dusk at Cao Bang and Xuan Son. Michael photographed a perched male at the latter site.
<i>Macromia urania</i>	One netted on the second visit to Cao Bang.
<i>Idionyx carinata</i>	Female hung up at Tam Dao. Thereafter recorded at Huu Lien, Cao Bang and Pia Oac.
<i>Idionyx thailandica</i>	Recorded at Cuc Phuong.
<i>Macromidia rapida</i>	Only recorded at Xuan Son.
<i>Acisoma panorpoides</i>	Recorded at Pia Oac, Xuan Son and Cuc Phuong.
<i>Aethriamanta brevipennis</i>	Several males were a surprise at Van Long on the last day.
<i>Atratothemis reelsi</i>	This fantastic species was only recorded on the tiny quarry pond at Pia Oac. A trip highlight.
<i>Brachydiplax chalybea</i>	Recorded at Nghia Lo and Cuc Phuong. This is the <i>flavovittata</i> subspecies.
<i>Brachydiplax farinosa</i>	Just two males on ponds at Pia Oac.
<i>Brachythemis contaminata</i>	Recorded at Tay Thien, Ba Vi, Cuc Phuong and Van Long.
<i>Camacinia harterti</i>	Two at Xuan Son, another at Khau Pha (not seen perched or photographed sadly). A trip highlight despite the lack of images.
<i>Cratilla lineata</i>	One at the pond at Xuan Son. Tom had this species at Cuc Phuong too.
<i>Crocothemis servilia</i>	Widespread (recorded on nine dates).
<i>Diplacodes trivialis</i>	Recorded at Huu Lien, Cao Bang and Cuc Phuong.
<i>Hydrobasileus croceus</i>	A few at Huu Lien and Cuc Phuong.
<i>Hylaeothemis clementia</i>	Small numbers at the stop between Cao Bang and Ha Noi. Also at Xuan Son.
<i>Indothemis carnatica</i>	Denis had a surprise female in his photo collection from Ba Vi (the swimming pool...). At least one male present on both days at the Bong swimming pool at Cuc Phuong.
<i>Lyriothemis bivittata</i>	A few at Xuan Son.
<i>Lyriothemis kameliyae</i>	Up to two males daily at Xuan Son. One female at Cuc Phuong.
<i>Macrodiplax cora</i>	Two males at Van Long on the last day.
<i>Neurothemis fulvia</i>	Widespread (on seven dates).
<i>Onychothemis testacea</i>	Recorded on rivers at Cao Bang and Xuan Son.
<i>Orthetrum chrysis</i>	Small numbers at Xuan Son and Cuc Phuong.
<i>Orthetrum glaucum</i>	First recorded at Tam Dao and on eight further dates.
<i>Orthetrum internum</i>	Benoit photographed this species at Pia Oac.
<i>Orthetrum luzonicum</i>	Recorded at Pia Oac, Cao Bang, Khau Pha and Cuc Phuong.
<i>Orthetrum melania</i>	Pia Oac. Hartwig had one at the stop between Cao Bang and Ha Noi the next day.
<i>Orthetrum sabina</i>	Widespread (11 dates).

<i>Orthetrum pruinosum</i>	Widespread (12 dates).
<i>Orthetrum triangulare</i>	Widespread (nine dates).
<i>Palpopleura sexmaculata</i>	Widespread (eight dates).
<i>Pantala flavescens</i>	Recorded daily. An incredible show at Sa Pa, with bushes festooned with this species in the rain.
<i>Potamarcha congener</i>	A few at Huu Lien and Ba Vi.
<i>Pseudothemis zonata</i>	Recorded at Huu Lien, Pia Oac, Xuan Son, Khau Pha and Cuc Phuong.
<i>Rhodothemis rufa</i>	Single photographed by Denis en route to Cuc Phuong.
<i>Rhyothemis variegata</i>	Recorded at Huu Lien, Xuan Son, Cuc Phuong and Van Long.
<i>Sympetrum speciosum</i>	One at Pia Oac.
<i>Tetrathemis platyptera</i>	Small numbers at Pia Oac, Xuan Son and Cuc Phuong.
<i>Tramea transmarina</i>	At least one on the reservoir at Cuc Phuong on both days.
<i>Tramea virginia</i>	One at Huu Lien for some. A few on the reservoir at Cuc Phuong.
<i>Trithemis aurora</i>	Widespread (ten dates).
<i>Trithemis festiva</i>	Scattered records (six dates).
<i>Trithemis pallidinervis</i>	Small numbers at Van Long on the last day.
<i>Urothemis signata</i>	A few at Van Long on the last day.
<i>Zygonyx iris</i>	Widespread (ten dates).
<i>Zyxomma petiolatum</i>	A few at Huu Lien, Cao Bang, Xuan Son and Cuc Phuong.