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Odonatological field notes of two January trips to south-eastern Thailand in 2005 and 2006

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Abstract. A report about Odonata seen during two trips to the south-eastern part of Thailand (Chon Buri, Rayong and Chanthaburi Provinces) in January 2005 and January 2006 is given in a form of field notes of the former author, along with his impressions of a Siberian first time visit in tropics. A shortened version of the text concerning the trip in 2005 has already been published in WDA's Agrion 10 (1): 5-7. Here observations made in 2005 and 2006 are compared. *Aciagrion borneense* Ris, 1911, *A. pallidum* Selys, 1891, *Onychargia atrocyana* Selys, 1865, *Pseudothemis jorina* Förster, 1904, *Anax guttatus* (Burmeister, 1839), *Epophthalmia* were for the first time recorded in Chon Buri Province; *Aristocypha fenestrella* (Rambur, 1842), *Prodasineura autumnalis* (Fraser, 1927), *Brachythemis contaminata* (Fabricius, 1793), *Brachydiplax farinosa* Krüger, 1902, *Trithemis aurora* (Burmeister, 1839), *Neurothemis intermedia atalanta* Ris, 1919 in Rayong Province and *Hydrobasileus croceus* (Brauer, 1867) in Chanthaburi Province, but all these records except for *A. borneense* and *A. guttatus* for Chon Buri Province has been already published in the mentioned publication of the first author. For these species, a list of the collected or observed specimens is provided.

Introduction

In January 2005 and January 2006 we made trips to almost the same areas of SE Thailand, during which we eagerly observed and photographed odonata and also made some collections. A report of the 2005 trip has been already published by the first author (Kosterin, 2006). Bro. Dr. Amnuay Pinratana and Prof. Bastiaan Kiauta kindly proposed to reproduce this report in 'Malangpo', that we accepted with gratitude. But instead of reproducing it verbatim, we would like to provide a more extended (original) version of the report on the 2005 trip and to add that for the 2006 trip. Besides, we add a list of specimens collected or observed for those species which were for the first time recorded in some province. The trips were undertook on the initiative, leadership and funds by Nikita Vikhrev, the odonatological observations and collections were made by both authors equally and cooperatively, while the field notes are written from the point of view of Oleg Kosterin.

1. January 2005. A Journey of a dilettante.

An about twice shortened version of this text has been published:
Kosterin O. 2006. The journey of a dilettante. WDA's Agrion 10 (1): 5-7.

"Incomplete is a life of a human being which did not visit tropics".
Academician Krasnov

Entomology has arisen in quite high latitudes and achieved there impressive advances, as most of the insect fauna of these areas (except for some remote regions of Siberia and N America) is well assessed. At the same time it is clear that to get a more or less adequate notion about the insect world, any northern entomologist must overcome his/her high latitude cretinism and visit tropics, which are the core of insect diversity. Bearing this in mind, I with an enormous gratitude accepted an invitation by Dr. Nikita Vikhrev from Moscow, an incredibly energetic businessmen, photographer, journalist and biologist combined within the same person, to join his winter trip to Thailand (at his expense!) to be something like an insect guide in that country, with a special attention to Odonata as his new and my old hobbies. Needless to say that, having dealt most of my life just with scarce Siberian dragonflies (with short recent escapades to South Korea, Japan, Germany and France thanks to the courtesy of Drs. Lee, Inoue, Dumont, Reinhard, Schneider and Papazyan), I had no idea about that country and its famously rich and splendidly studied fauna. But of course this could not comprise a reason to refuse such an incredible invitation. Two circumstances let me hope that situation would not be so awful: that there would be a dry season and that we were going to visit not the North of Thailand, so popular among odonatologists, but just a plain touristic area of Pattaya, which is mostly devoid of rich primary biota. I guess reports of visit to such uninteresting places rarely appear in press and in this respect this one might deserve some attention.

So, on January 24, 2005 we four: Nikita, his daughter Polina, his friend Boris Bronstein and me, disembark from a plain in the airport of Bangkok and took a long way to Pattaya. We passed through the enormous city of Bangkok for ages until were able to see along the road an infinitely vast, perfectly flat and rather boring land with some 'plain' grass mostly burnt out by the sun, coco palms and immense water reservoirs, of which we argued if they were rice fields inundated for the winter or not. Close to the end of our way, somewhere at Si-Racha, strange sharp mountains appeared suddenly which were covered with pretty dry forests, reminding Russian forests in October, that was hard to aware under hot weather, but these mountains disappeared as suddenly as appeared. Darkness fell, and at last we arrived to Pattaya which looked for me as a huge city as well. We were accomodated in Natural Park Resort, on Jomtien Beach, which looked no other than paradise. Gekkos were the first representatives of local fauna which greeted us, while, judging by the amount of their excrements, all the nocturnal insects seemed to have been already eaten by them.

Many acquaintances of mine who managed to visit tropics, both Russian and foreign, reported disappointedly that "there are no insects in tropics!". Indeed, in the short Siberian spring and summer, if the air manages to be heated to 20oC and above, it starts boiling with insects (not least among them being mosquitoes), regardless if it is day or night. It seems that for some reason tropics support about the same amount of insect individuals but their activity is redistributed round the year (often for the same species: the fact, learnt from the atlas by Hämäläinen & Pinratana, that most odonate species may be found in Thailand round the year struck me much). So I was prepared to some disappointment. The reality appeared not so bad: at day the amount and diversity of insect looked quite reasonable, both not allowing to be bored of and not bringing about an emotional and informational shock. I would say that Thailand in winter and at daytime most reminded the Crimea in summer, both in respect to weather and insects. At night those informants would appear rather correct, but this does not relate much to odonates.

Next day we started to investigate the hotel surroundings. First we walked along some patch of land yet not used for hotel construction out of the beach and discovered a chain of very shallow pools with muddy banks, trampled with zebu cattle, along a road being parallel to the Jomtien Beach. At their banks there fly and rest numerous small and pretty *Brachythemis contaminata*, of both sexes, a dragonfly which we then found everywhere we come. Quite a number of males also flew over the water. Next in tall grass nearby we chose out some elegant *Orthetrum sabina*, which from distance at first seemed me to be some gomphids. However, this was the only species which I was able to recognise right in the field, basing of my scarce knowledge. We failed to get relevant literature in advance (next

evening was devoted to attempts to found some literature on dragonflies in local bookstores, which failed nicely), so most of odonate species remained enigmatic for me until I return to Novosibirsk. There species were later identified using the reprint edition of Asahina's collected papers devoted to the Thai Odonata (Asahina, 1993), the Guide for the genera of the World fauna by the wing venation by Belyshev & Haritonov (1977), with reference to the colour photographs published in the Atlas of the dragonflies of Thailand by Hämäläinen & Pinratana (1999), the Thai book 'Dragonflies and damselflies from Thailand' by Pisuth Ek-Amnuay (1996), the Field guide to the dragonflies of Hong Kong (2002), and in a book 'Dragonflies of the world' by Silsby (2001). Identification was complicated by the fact, quite common with amateur odonatologists, that a number of species were registered only as photographs, as we all were happen to be eager photographers. It was Dr. Matti Hämäläinen who has patiently confirmed or suggested identification of many photographs and specimens by E-mail. Further on in the text, if otherwise not stated, I will mention species names as if I knew them when saw.

We spent most of that hot day exploring those muddy pools. In addition to the two mentioned species, I noticed several *Pantala flavescens* (I knew it at that time as well) flying high above the bank and spotted one female. On the grass, I collected a young not fully coloured female of *Crocothemis servilia*. Then I crossed the road and moved to one of that agricultural reservoir surrounded by palms, under which some cabins were seen. At its bank, with partly inundated herbs, I found the same *B. contaminata*, one mature male of *C. servilia*, and in the herbs hid numerous tiny *Agriocnemis femina*, the species familiar for me after Japan. That was all for that day. But in the evening, hunting for danaid butterflies with my camera, I discovered a great place nearby: a swamp with tall grass, some ferns, *Typha* and *Phragmites*, surrounded with a tiny forest, almost right on the Jomtien Beach, between B. O. Guesthouse and Metro Jomtien Condotel. I bet it will exist no more than for a couple of years and some hotel is to be constructed on this place. There was no dragonfly or damselfly in twilight on this swamp, but it was promising for the next day.

Next day, January 26, we departed for this swamp in the morning, and returned to it about the noon. Results were not so diverse but interesting. On a grassy edge of the grove which surrounded the swamp, there fluttered a dozen of painted females of young *Rhyothemis variegata,* none of them being seen on the very swamp. On the swamp, there were *A. femina* in dense grass and quite many *Ceriagrion auranticum* around the swamp margins, in grass and among bushes, where some tiny patches of open water were present. I managed to make one successful shot and miss an excitingly slender orange damselfly with a greenish pattern; its built allowed me to guess that it was some *Aciagrion*, and indeed it later appeared to be *A. pallidum*. On a sunny tree branch facing the swamp about 3 m high I noticed a perching dragonfly of quite a characteristic shape and coloration; I missed it but am sure it was *Lathrecista asiatica* (that is of no surprise of course). And a number of individuals of *O. sabina* were startled from grass here and there (but no *B. contaminata*). This dragonfly was also quite common in ruderal places between some tree groves elsewhere nearby. On Muddy Pools there were the same set of species as the day before (including some mature males of *C. servilia*) plus a male *Diplacodes trivialis* photographed by Nikita.

In the afternoon we were taken to a regular excursion to the 'Tropical Garden' Nong Nuch near Pattaya. Although beautiful, it gave nothing to our interest but I managed to escape from our attentive guides towards a sharp hill covered with rather green than dry forest. It took a considerable fast walk across abandoned hot alleys. At the hill foot, right on the margin of the garden, in a depression of a gentle grassy slope there was a small artificial pond with rather clear water. At the banks of this pond, along with regular *A. femina* and *B. contaminata*, numerous were *Acisoma panorpoides*, with their curious body shape (of course easily recognisable). There were also one or two males of *Pseudagrion microcephalum*, which by general appearance and behaviour (long flights low above open water) strongly resembled our *Enallagma cyathigerum*, but were somewhat larger and more cautious. Besides, while capturing *A. panorpoides*, I occasionally discovered in the net a young and soft male of *Ceriagrion indochinense*. At last I reached the woody hill and found an old and

desolate road, grown up with weeds, going through the forest along the foot of the slope, and walked along it for half an our, to and back. There were some libellulids: I met several hovering *P. flavescens* and several softly fluttering *Rhyothemis phyllis*. Besides, I startled a male (well-recognisable for the specific wing spots) and captured a female of *Tholymis tillarga*. I felt I become too late and reluctantly abandoned the forest, but unfortunately arrived to our team too early and had to watch the elephant show.

Next day, January 27, was devoted to a sea journey to 'the Coral Island' Ko Lan. It was a beautiful hilly island with landscapes looking pretty Mediterranean, and so again strongly reminded me the Crimea, the most popular place of summer vacations of rather well being Soviet people. An impression strengthened by the fact that some of those, as well as their numerous New Russian children, were already here as well, on local beautiful beaches. I had a walk uphill and saw a number of *P. flavescens* hovering far above slopes and roads, beyond the reach of my net. Some, however, perched on high dry tree branches. Descending down to the beach they became more and more numerous, and I observed even a small swarm of dozens of individuals. From above I fixed a large swimming pool, which appeared long abandoned and had shallow dirty water with slime of cyanobacteria. Its concrete banks were full of libellulid exuviae, and the dragonflies were also here and numerous. At the banks there were a lot of *Trithemis festiva* and *Macrodiplax cora* (I remembered how this species looks like on photos but thought it was much smaller). They both perched on bushes and branches, but the latter were more cautious and were for longer time on the wing. As expected, there were also some *B. contaminata* and *O. sabina*. Several large bright-red libellulids ranging along the banks, there certainly were some *C. servilia* but maybe anything else as well; and of course many *P. flavescens*. One male *D. trivialis* ranged low along the water margin. There were also coenagrionids occupying slime mounds protruding from the water: quite many *Ischnura senegalensis* and few *P. microcephalum*. At one place near the pool among bushes, there restlessly fluttered a school of *R. phyllis*, all seemed to be females. So, the swimming pool mismanagement provided excellent refuge for odonates. Nikita found a very small and extremely dirty pool near the very beach, with a patch of reed and large dead leaves covering the bottom, which harboured quite a number of *I. senegalensis*, some *C. servilia* and one perching and ranging male of *P. congener*, as well as a male of *Brachydyplax farinosa* which I did not seen but which Nikita has photographed.

One January 28 Boris and me tried to visit the lake at Bang Phra and the Chan-ta-ten Waterfalls nearby, both recommended by Matti Hämäläinen, but although some people in the hotel kindly wrote those names on a sheet of paper in Thai, we failed to do this: although the driver of open taxi tried to discuss in English the matters of comparative sexuality of Thai and Russian women, he seemed to fail to understand where we would like to get to, and transported us right to the Khao Khieo Open Zoo. We did not complain much: while Boris took photos of birds in the aviarium I had an opportunity to make a close acquaintance with that completely dry forest on those sharp hills. This was something I never experienced: a pretty lifeless forest, deep autumn to my allusions, at so extremely hot weather. At the edge of such a slope forest near the metallic net of a huge aviarium, there was a territory of a beautiful, deep cherry-brown male of *Neurothemis fulvia*. He was too cautious for me to take a picture (especially because it turned later that I used a wrong mode of autofocus, iESP instead of SPOT), and I spent maybe an hour in vain attempts. He perched on rather high stocks or branches, being frightened he disappeared above the forest but either appeared on a lawn in front of the aviarium or on the same edge. Once I saw how it flew above a small artificial pool and touched the water surface for a wink. Later I suddenly saw a female on the aviarium wall and even managed to photographed it, but it disappeared immediately. Nearby there was another new species for me, and even a new family. It was *Prodasineura autumnalis*. These elegant creatures (males) kept to grassy banks of a lotic ditch. As startled, they flew above the surface for a while and then landed on short grass hanging over the water, periodically slowly half-opening and suddenly folding their wings. When I later checked my photos, both digital and slide, I was struck to see that one individual differed strongly by definitely pruinosed sides of the pterothorax and lower appendages, being

absolutely identical in all other respects: body built, pattern and size. Let you see: http://pisum.bionet.nsc.ru/kosterin/odonata/protoneuridae/prodasineurablue.htm
I later found no mentions of such a feature in this species. Needless to say that I did not collect it; and at all had no intention to show the net in this zoo, especially with two gibbons, a white one and a black one, wandering and shouting on the opposite side of the ditch. Besides, there were scarce *B. contaminata* and *Pseudagrion* (most probably *microcephalum*) on this ditch.

Upon return to our hotel, in short twilight, I had a walk to the Forest Swamp and Muddy Pools to learn if somebody demonstrated any crepuscular flight. In shade of the tree grove surrounding the Swamp I spotted an erratically flying male of *Pseudothemis jorina*, and in another similar place a fastly and very low flying female of *D. trivialis*. In Muddy Pools I observed nothing but a large lonely bat flying above them.

Three next days were devoted to a visit to two small national parks in the east, in order to see a bit of a true Nature. We rented a minibus with a very smart, friendy and smily driver named Nom (I recollect that so Tolkien's people called Finarfin, an elf, and in their language this meant 'wisdom'). By the road to the East we made a short stop for a lunch at some village about 5 km W of Clayeng, Rayong Province, surrounded with uniform *Gewea* plantations. At the road and deep in plantations there were digged rather deep holes with pools, covered with dead *Gewea* leaves on banks and bottom. There we found bright-yellow marked males and ovipositing tandems of *Copera marginipes*, several males of *Brachydiplax chalybaea* and fewer males of *C. servilia*. Besides, Nikita managed to photograph *Neurothemis fluctuans* and I saw some blue and blue-faced male of *Pseudagrion*.

At last we arrived to the easternmost point of our trip, Khao-Khitchakut National Park in Chanthaburi Province. The headquarters and bungalows were situated in a lovely place, with a large pond with many bays, lawns, and numerous trees which were labelled with so diverse names and belonged to so many families (Euphorbiaceae were most frequent) but looked for us almost the same, with similar smooth bark and hard glossy integrate pointed leaves. I immediately directed myself to the Krating Waterfalls. It was an evening already. Right beneath the waterfalls, in a damp place among large boulders I saw two red-legged males of *Copera vittata*. Then I started to rise up the torrent, which was quite weak this season so I preferred to climb up right on smoothly excarved rocks of its bed rather than along a smooth path nearby. Along this way I managed to notice two ghost-like creatures secretly keeping to shaded damp rocks which looked exactly as I imagined the damsels of a tropical rainforest. Indeed these were pale, striped with darker grey, males of *Protosticta*, and on the good detailed photographs I made they looked indistinguishable from *P. khaosoidaoensis*, the species to be expected at this locality. When I reached the high waterfalls, they were illuminated with the last red sunbeams and no more odonates were observed. At about midnight, a male *D. trivialis* appeared among those very few insects which were attracted by numerous lamps.

Next early morning, January 30, I investigated the large pond at the headquarters, which Nikita explored last evening. There were lot of *Copera ciliata*, and all the individuals photographed and observed were females, either mature with a white background or young with a reddish one. I met some old friends *B. contaminata* and *I. senegalensis*, but they were not numerous. In this place, we could not collect and our records were restricted to photographs. I have photographed a blue-faced male with abdominal segment X black above and appendages shorter than it, so it should be *Pseudagrion australasiae*. But last evening Nikita had been photographed obviously *P. williamsoni*, with a yellowish face, identified by a body pattern with the aid of a photo in 'Asian Dragonfly Home Page'. In several hundred metres from the pond, on a neatly cut bush I noticed and photographed a female of *P. autumnalis*.

Later in the morning I rose again to the Krating Waterfalls. In the lower part I encountered a young male of *Trithemis aurora*, while Nikita photographed a mature male and also saw a female *P. jorina*. Having reached the upper fall, I found a path through bamboo thickets on a very steep slope, climbed up along it and entered the stream valley

above the waterfalls. At last, I happened to get to the tropical forest as I imagined it from my childhood: with a great diversity of ferns, from giant ones with leaves about 2 m long to tiny membranaceous Hymenophyllaceae and some pseudodichotomically branching Gleicheniaceae, with crispy *Selaginella*, with horned *Gasteracantha* spiders and of course with diverse exotic butterflies including crowds of deeply violet-brown *Euploea*, hidy *Melanitis*, some strange hesperiids and lycaenids, and even such charismatic ones as *Lamproptera curius* swallowtail and the huge *Parthenos* (but one species, *Neptis clinia*, looked as if just having escaped from our Siberian birch forests). The stream run rather calmly, partly over smooth rocks partly through a sandy bed. The sun had appeared from clouds rather not long ago, and at first there were no dragonflies. Then I noticed a *Vestalis* (*V. gracilis*) slipping and disappearing among herbs. For an hour I spend there I noticed three individuals and captured one female, although it appeared quite difficult for them being so cautious and secrety. Then I was struck to see *Aristocypha fenestrella*. I saw a chlorocyphid for a first time and expected that creatures with so curious a built should demonstrate some curious behaviour. But these violet-black males just sat on branches or stones or flew for some distance, and quite allowed to photograph them. Then something resembling a corduliid flew fastly by me. I start to look for such things and soon see it again: this dragonfly flew in tree shade about a metre above rocky parts of the stream, with some stops in the air, and was fairly hard to be netted. Quite surprisingly, after a while I managed to capture a tandem. Keeping the pair in hand I start to realise that they were not corduliids but *Zygonyx* (*Z. iris malayana*). I thought these creatures to be pertained only to serious waterfalls but later learned that in Indochina they are quite widespread. Lastly, I was astonished to see a very large dragonfly with wide orange wings which start to impetously and elegantly fly to and fro over quite a long section of the river at about 3 m high (for me it looked like a giant *Sympetrum croceolum*). I had no hope to get it but unexpectedly succeeded. It turned to be a very young female of *Hydrobasileus croceus* (and I recognised it), perhaps my best capture for this trip. Being in such a fantastic place I strongly realised that I was too late to return in time. I started to descend the valley by a very good path, accompanied with a plastic water pipe, but somehow lost it and walked over the stream rocky bed. As expected, I appeared right above the main waterfalls, and saw leisure wandering Thai tourists far beneath. Besides, I saw also many *A. fenestrella* and *Z. iris* right near me, quite in sunshine, which I did not see both in the evening and morning. I had to climb down through bamboo thickets beside the waterfall, brachiating as a gibbon (this was indeed the only possible way of moving there), and although the destination was so close, several times had to change the direction, lost my net handle, tore my trousers into many pieces, and was tired enormously. What I said myself was 'not relax immediately when come to a good place!', nevertheless when I came to the pool beneath the waterfall, I slid and fell upside down into it together with my bag, to moist the camera, tickets, passport etc. (fortunately, all this worked later), to a great surprise of the tourists. I made a lion-cloths from my shirt and bravely descend to our bungalow, found out that my friends had already checked out, and then themselves quite relaxed in the local small restaurant. They goggled at me, and Boris said that he sees absolutely a happy man.

In the afternoon we drove half way back to the west and arrived to the Khao-Chamao-Khao-Wong National Park (Rayong Province). It surprised us by a great number of officers at headquarters (many riding motorollers) in almost military form and mostly with quite gloomy faces (and this impression appeared wrong), so that it resembled rather headquarters of some military base. After accomodation, we made an excursion to the local pond, quite small, and with some water chestnut rosettes floating on the surface. At a bush there were a couple of perching males of *C. marginipes*, I noticed a male *P. autumnalis*, some blue *Pseudagrion* male, a male and female of *T. aurora*, and encountered a weak and uninterestingly looking libellulid female (in our country I would took it for some *Sympetrum*) which appeared to represent *Neurothemis atalanta*. Boris and Nikita saw a small and handsom libellulid with later appeared to be a male of *Neurothemis tullia*. In twilight I visited the lower reaches of the stream (in front of the border of the zone restricted

for night) and saw a lonely dragonfly flying above the valley and tree crowns, it could be either a small aeshnid, a macromiid, *Zygonyx*, or God knows what else

Early next (January 31) morning we depart, separately, for the waterfalls and came back to the noon, now in time. The valley looked more gloomy than the Krating Waterfalls as well as the headquarters: the river fell more gently and hence the forest bordered it more densely and it was partly overshaded. Besides, the weather was overcast and the sun only rarely appeared. Once in a short sunlight, in one of few small openings at the bank I saw a male *A. fenestrella* and a male *T. aurora* activated, while in a boulder shade met with a male of *C. vittata*, while Nikita photographed a young, still grey, male of this species. And that was all for dragonflies.

We departed from the Reserve and, making almost a loop from the main road, returned nearly to the same mountain range and made an excursion on the banks of the Khao-Chamao River just south of Khao-Chamao village. It was quite large and nearly stagnant, with some muddy pools on the technically disturbed ground at the bank. We hoped to see some gomphids but failed. Instead, we found quite a rich set of libellulids. Over the water there were males of *C. servilia* perching on protruding stems, and one male of *Brachydiplax farinosa* (identified later by the body pattern and the number of antenodals), *O. sabina* were startled from the grass, over a muddy pool we observed a male of *D. trivialis*, and there were a lot of young and some mature males of *T. aurora*, the former concentrated in grass at the bridge (where I also caught a female *C. servilia*). Several times we saw also a cautious individual of *N. fluctuans*. In a steep bushy part of the bank we observed *P. autumnalis* of both sexes, occupying bush and grass leaves hanging just above the water. As usually, we saw a blue male of some *Pseudagrion*. In the evening we returned to Pattaya.

On February 1st, I managed to visit the large lake in Bang Phra, Chon Buri Province. Perhaps all large flat lakes around the World look alike, so it was rather a boring place, which quite could be confused with some steppen lakes of West Siberia. There was a wide surrounding plain grown up with 'plain grass and weeds', where only scarce females of *B. contaminata* were met with. The very lake seemed to have strongly step back in the dry season: its banks were just mud with immense dead large snails and some patches of high grass and reed. After some useless wandering, I found some small valley of something like a dried out tributary, with a chain of tiny pools along, and went 'upstream'. I saw several *O. sabina* perching and several *P. flavescens* flying. A male of *P. congener* occupied surroundings of a small pool and, although cautious, could be photographed since returned to the pool again and again.. I also saw a female of *Neurothemis tullia*. Quite apart from the lake, in shade of several trees I startled from a grass a male *T. tillarga*. And that was all.

In the evening, I made a walk to Muddy Pools in twilight and on the trunk of a large tree growing in a dozen of metres off the water I found two closely set large exuviae of *Epophthalmia* sp. about 1.5 m above the ground, which I identified by the mask split into several long teeth together with a general macromiid appearance (and this character I remembered from Belyshev's 'Dragonflies of Siberia'). No crepuscular activity of anything but some stragely shouting bird and stridulating crickets was observed.

Last day of our presence in Pattaya, February 2, in the morning I first visited the Forest Swamp. There were the same *R. variegata, O. sabina, A. femina* and *C. auranticum* but I also found two freshly emerged and still soft very interesting odonate females: a very stout coenagrionid which later, by its wing venation was identified by me as *Onychargia atrocyana*, and this appeared true (this is an arboreal species but the female was found in grass), and a large brownish libellulid with a bright white stripe on its thorax: *Rhodothemis rufa*. In the afternoon I revisited the Swamp and collected another fresh female *O. atrocyana*.

Between these short excursions, we undertook a long sea trip to another island in south-east, Ko-Khram. To be true, while floating there I would bet it was a peninsula but the map and the boatsman said it was an island. The only toponym which we saw by our own eyes was an announcement that this was Sai-Kaew Beach. Although the sandy beaches were nearly the same, vegetation of this island differed greatly from that on Ko Lan, since most of the land was covered with dense thickets of low trees and bushes or a forest of huge spiny

bamboo arranged in bunches many metres in diametre. Several large and deep holes were long ago dug out in this forest near the beach, and now they were ponds with steep slopes. The dragonfly fauna appeared to be rich and diverse. Certainly there were *P. flavescens* restlessly flying, but among them I also noticed a male of *Tramaea transmarina euryale*, which was impossible to catch, and startled from a grass a male *T. tillarga*. There were several bright-red males of *C. servilia*, shining purple male of *T. aurora* and many blackberry-violet ones of *T. festiva* and few *B. contaminata*. Some *O. sabina* and females of *T. festiva* were found perching on grass nearby. At one side of one of the ponds, there were three females of *R. phyllis* and one female of *R. variegata* (I did not see any male of this genus throughout the whole trip). They four occupied protruding branches of a dead bush at the water and were very cautious. When a human appeared on the bank, they started fluttering over a bushy bank, noticeably keeping together. The individuals of *R. phyllis* did it until the human disappear (once I was patient to wait for half an hour) but the female of *R. variegata* after a while invariably sat down on a perch, abandoning its companions. At the same bush perched also very cautious male of *P. jorina*. Of zygopterans, there were quite many common *I. senegalensis* (which looked larger and more bluish than on Ko Lan), and a story repeated when we with Nikita encountered different representatives of the same genus: I collected and photographed a female of *Agriocnemis pygmaea* while he photographed a female of another *Agriocnemis*, and judging from the the pattern and prothorax shape seen on the photograph, it could be *A. minima* but absence of dark humeral stripes on the prothorax makes it doubtful. This specimen was not collected. Noteworthy that no *A. femina* was observed.

Besides, near one of the ponds found a male of some *Ceriagion* sp. Later it occurred that its appendages look like those *of C. indochinense*, but its abdomen was not yellow but bright-red above and orange at sides
(see http://pisum.bionet.nsc.ru/kosterin/odonata/coenagrionidae/ceriagrion.htm
and also files ceriagrion2, ceriagrion3 and ceriagrion4 on the same site), and the body size was larger. This specimen is now with Dr. Matti Hämäläinen. Closer to the evening I walked along some road uphill and saw a lot of *P. congener* (and nothing more) on its sides, few males and many females, many of which were perching on branches of spiny bamboo, for some reason obviously congregated to a certain section of the road. Leaving this island, I forgot the very net, so it and its handle turned to be sacrificed in different Thailand provinces, as a promise of return.

Early next morning we departed back to Bangkok and already in a queue for registration were informed that our flight is postponed for a day. The responsible Krasair company offered us to be accommodated in the a hotel in Bangkok downtown, so we were granted with a day in the capital, which Nikita decided to devote to the only purpose: to dig out the odonatological literature. We explored about five bookstores, in the first or second in a huge supermarket in the centre, we found the Thai book by Pisuth Ek-Amnuay (1996), illustrated by photographs, that was already something. At last, in the University bookstore, they said us that they have the Atlas by Hämäläinen & Pinratana (1999) and also a reprint edition of collected papers by Syosiro Asahina (1993) on Thailand, undertaken by Bro. Pinratana, about existence of which I had no idea and which in fact helped me most. On this pathetic note our trip came to its end. One may see my photos of odonates done at my Internet site at: http://pisum.bionet.nsc.ru/kosterin/odonata/thailand.htm and the photos by both me and Nikita are submitted to 'The Asian Dragonfly Home Page' by Eric Gibert: http://www.asia-dragonfly.net/index.php.

So, we met with only 45 odonate species (a bit less than a total of 49 species occurring in the part of Novosibirsk Province east of the Ob' River), of which there were no aeshnids, gomphids, corduliids, euphaeids, and macromiids were represented only by two identical exuvia. At the same time, since we visited rather unpopular areas (especially Rayong Province), we happened to record *Aciagrion pallidum, Onychargya atrocyana, Epophthalmia* sp., *Pseudothemis jorina* for the first time for Chon Buri Province, *Aristocypha fenestrella, Prodasineura autumnalis, Brachydiplax farinosa, Brachythemis*

contaminata, Nerothemis intermedia atalanta, Trithemis aurora for Rayong Province, and *Hydrobasileus croceus* for Chanthaburi Province. This followed from the distribution maps in the atlas by Hämäläinen & Pinratana (1999) and was confirmed personally by Matti Hämäläinen.

2. January 2006.

In January 2005 we visited Thailand for the first time. It was an impressive trip, the notes of which, with a special respect to odonates, are presented in the previous part. In January 2006 we returned and visited the same places. There is no need to describe in detail the more moderate impressions of the second visit, so here is just a brief report of odonates encountered. But one circumstance should be pointed out: in January 2006 we found insects much more abundant and diverse than an year ago. This can be explained by the previous winter being exceptionally dry, and to a lesser extent that this time we were in first half of January, while the first time in the second half. Anyway, the unusual poverty of the previous winter was rather good a circumstance for us since it made our first acquaintance with a tropical biodiversity less shocking. This time it was good to see its richer normal winter variant. I will stress the differences below.

Amusing was the fact that we met the New Year on a plain Moscow-Bangkok, fool of cheerful and drunken compatriots. We arrived to Bangkok at midday, tired enough, and took a taxi to Pattaya. Since we failed to book any hotel, we had to look for empty rooms and found them only in the southernmost end of Pattaya, at the very end of the Jomtien beach, in Jomtien Holiday Hotel, late in evening. It was a large and tall hotel specialized solely on Chinese tourists, which spend there no more than one night and were carried in plenties to and fro by huge couches, dozens of which stood every night at the entrance. We were quite strangely-looking guys in that hotel. Much more strange we looked for hotel's employees when, immediately after accommodation, we rushed through the backyard and a pretty dump to the nearest wasting land in a hope to see some insects in twilight of the first day of this year. And we were granted in this our intention. There was an extremely dirty pool behind the backyard, bed smelling and with some soap layer on the surface, obviously intaking some sinks from the hotel. But there were a lot of dragonflies. First of all there were numerous *Tholymis tillarga* swarming above the pool. In particular, we observed a female ovipositing, with a male patrolling above it. Last year we only occasionally saw some solitary individuals of this species. On a damp grass of a bogged wasteland around the pool we met many *Diplacodes trivialis* (very few last year) and some *Crocothemis servilia* and *Ischnura senegalensis*. In the last twilight, a scarcely seen male *Anax* appeared flying above the pool surface. That was all for the first day, but that was enough.

Next day we proceed exploring surroundings of the Jomtien beach. The pool and its surroundings presented us the same *C. servilia, D. trivialis, I. senegalensis* active at the pool and near and some individuals of both sexes of *T. tillarga* resting on bushes and high grass. In addition, there were many *Orthetrum sabina* everywhere, some common *Pantala flavescens* were flying above the wasteland, and I collected a female of *Rhyothemis variegata*. Nikita found a male of *Trithemis pallidinervis* and of *Ceriagrion auranticum*. In later days we observed there the same species set, with few additions. Next morning, January 3, I found here also a female *Aciagrion borneense*, and a young female of *Brachydiplax chalybea*, and on January 4 – *A. pallidum*. A large flat chain of pools behind the Jomtien beach this year appeared to have drought out (that was strange since the generally the vegetation looked fresher) and devoid of odonates. Behind it, at an edge of a grove, on July 10, I found a group of *Rhyothemis phyllis* patrolling.

From a window of my room I noticed a lovely large pond with some reed and a lot of lotus and nympheas, not far from the sea. There were many familiar *C. servilia, Brachythemis contaminata, I. senegalensis*. Besides, numerous appeared *Acisoma panorpoides* of both sexes and males of *Diplacodes nebulosa*, a species not seen by us last

year. The former keep to the grass on banks, the second mostly perched on stems emerging from water. There was one male of *Neurothemis tullia* and several males of *Brachydiplax chalybea* also perching above the water, and some *Tramea transmarine euryale* ranged above it apart from the bank.

In the afternoon we visited the swamp with ferns and reed and surrounded with trees between the P. O. Box Hotel and Metro Jomtien Concotel, which attracted us so much last year. This swamp was also almost dried out and hardly had any water, yet the vegetation was rich and odonates numerous. As previous year, there were many (of course the abundance evaluated so with respect to their dimensions) *Agriocnemis femina* and *O. sabina*. In a shade of trees and on the edges of this grow there were many *Aciagrion pallidum* (in grass) and *Lathrecista asiatica* (perching on protruding twigs in 1-3 m above the ground): of both species, last year we just saw one individual for many visits there. We found no *Rhodothemis rufa* and *Onychargia atrocyana* but instead encountered a male of *Neurothemis intermedia atalanta*. And instead of numerous *Ceriagrion auranticum* there were equally numerous *Ceriagrion olivaceum*. Looking ahead I have to say that several further visits to this swamp during our trip did not provide more species. I revisited the swamp on January 10 and found no damselflies, while of dragonflies found, in addition, a female of *D. trivialis*, a young female of *B. chalybea*, a female of *T. tillarga*, and this time two *N. intermedia atalanta*.

Next day, January 3, we spent at Sai-Kaew Beach. We get there by a cater, and had some difficulties to correspond the islands and peninsulas we saw with the map, but most probably it was situated on the island of Ko-Khram. There were many cars came 'from the continent', but our 'captain' mentioned something like a ferry (or bridge?). Anyway, it was a lovely place, with banks clad with thick and spiny thickets of low trees, shrubs and spiny bamboo. Several *Tramea transmarina* were permanently flying, obviously aggregated to each other, at crowns of sparse trees growing just on the beach on the very bank. Along the road going through jungles, and in gaps in thickets, there occurred *Lathrecista asiatica* and *Potamarcha congener*, and, once, a male of *Neurothemis fulvia*. I found a path which lead me to another deserted road along the coast which in turn lead to an extremely beautiful deserted bay with some half ruined constructions and a fence of barbed wire, with many gaps in it. Later I learnt that this bay is a military base and the access there is prohibited. In one place of that road, nearly facing the rocky sea coast, I found *Aciagrion pallidum*, and in another place not far from there a female of *Orthetrum glaucum*, which perched on stems and as startled flew only for very short distances. At the beach there were two ponds with grassy banks and surrounded by trees, one with flat banks and another in a deep hollow. Last year they showed a rich fauna of odonates, and this year even richer. Going down the shady slope of the bank of the hollow pond, I saw a brownish-grey moderately striped *Gynacantha* sp. (most probably *G. subinterrupta*) which sat on a stem in front of me but then was scared and disappeared. Above the pond surface a male of *Anax guttatus* ranged low above the water (and I spotted it), several *Pantala flavescens* flying higher. At reed patches at a high bank there kept three males of *Neurothemis fulvia*, obviously keeping more or less together, and many *O. sabina* and *C. servilia*. At tall grass stems and dry bush branches near the water perched several *B. chalybea*. At a flatter bank there was a perch of a male *Orthetrum chrysis*. It was very cautious and ranged far above the surface but returned mostly to the same perch. Besides, I saw *Orthetrum pruinosum*. In low grass on a flat bank there kept several males and females of *Neurothemis tullia* (last year we met only two males for two week), and extremely numerous *Ceriagrion olivaceum*, some *Agriocnemis femina* and *Agriocmenis pygmaea* in a mixture, and one *Aciagrion pallidum*. I hoped to collect more such specimens of *Ceriagrion ?indochinense* as the one I collected last year: very large and with orange abdomen. But nothing like this was met this time. Several *Ischnura senegalensis* perched on grasses emerging from the water surface. The odonate set at the flat pond was more poor, but at a thicket edge near it *Rhyothemis phyllis* was soaring. There were no *Trithemis festiva* and *T. aurora* which abounded these ponds last year.

We revisited this place on January 11. The situation at the pond was the same but there were not a single individual of any *Ceriagrion*. This time we did not see *Gynacantha*.

But at the same very place of the deserted road where on January 3 I collected *A. pallidum*, I again encountered *A. pallidum*, and at the same place where I collected a female *O. glaucum*, I found a male *O. glaucum*. There were no fresh water nearby and those facts remained unexplained.

On January 4 we departed to the Khao-Khitchakut National Park, Chanthaburi Province, where arrived at midday. There was a small open restaurant in front of the entrance, with a small lotic ditch behind it near the bush fence. At the ditch, there were two males of *Neurothemis fulvia* and several males of *N. fluctuans* perching on high stems and chasing each other (that of *N. fulvia* preferred to fly low above water along the same trajectory each time), while at the bush fence there were many young *N. intermeida atalanta*: three species of the same genus altogether. The second half of the day we explored a large pond at the headquarters and the lowest part of the Krating valley. At the grassy banks of the pond there were the same *Pseudagrion williamsoni, P. australasiae, Prodasineura autumnalis,* which we saw last year, but this time added *Pseudagrion rubriceps, Agriocnemis pygmaea* (many; perhaps there were also *A. femina* , as these species as a rule occur together, but this time this was not documented by neither specimen nor a photograph), *A. nana, Aciagrion borneense* (few), *A. pallidum, Diplacodes trivialis* (many), *D. nebulosa* (both sexes), *Neurothemis tullia* (both sexes), *N. fluctuans* (males). There was some unidentified teneral *Ceriagrion* sp. We met only one individual of *Copera ciliata*, so numerous last year, and not a single *Brachythemis contaminata.* In addition, Nikita photographed a young individual of *Copera marginipes* and a male of *Brachydiplax farinosa* (again, discriminated from *B. sobrina*, according to Asahina, by 8 antenodals seen on the photo). There was an artificial bay with sandy banks at the point of the Krating River influx, and there were other dragonflies species, all most of which not seen by us anywhere last year. At its small secondary bay, with some reed, there perched males (one of each species) of *Orthetrum pruinosum neglectum*, *O. chrysis*, and *N. fluctuans*, but in the evening at that place there was only a male of *Neurothemis fulvia*. On a small congregation of floating twigs and branches at the bank Nikita found several *Libellago lineata*, and a male of *Trithemis aurora*, while at the very mouth of Krating there kept about a dozen of *Neurobasis chinensis* and a male of *Heliocypha biforata*. There was also a concrete ditch with a running water at the side of asphalted road going to the Krating River. At this ditch, a male of presumably *Orthetrum glaucum* was perching and patrolling along it.

In the lowest parts of the valleys of the Krating River arms, in shade of primary tropical forest, two odonate species were found. In one place there was a congregation of 7-10 individuals of *Vestalis gracilis*, perching on bush twigs, sparse grass and boulders. At the same place there kept secretly several females of *Neurothemis fluctuans*. Surprisingly, a spot of many *V. gracilis* was found also in shade of trees at the pond bank opposite to the mountain slopes. In twilight I anticipated to see some crepuscular activity above the pond, but saw only some individuals of *Tholymis tillarga* at the pond near the bridge.

January 5 and 6 were devoted to exploring the Krating stream at and above the waterfalls. At the waterfalls no dragonflies were seen. Above them there is a very steep section of slope where tall trees are absent and only thickets of not so high a bamboo are present, leaving some gaps so that the place is rather sunny. There kept many *N. intermedia atalanta* and also several females of *N. tullia* and one female of *Trithemis aurora* were met with. Above, the slope become very gentle and the path for some distance went through a regular rainforest of tall trees, with scarce herb layer and moderately expressed bush later. Here I thrice (on a way there on the two days and on the way back on the first day) startled *Gynacantha bayadera*, which flew some distance and soon sat on branches. We spent a considerable time in two openings along the Krating River valley where it flews through a wide granite bed. As an year ago, there were many *Vestalis gracilis* and *Aristocypha fenestrella*, but no *Zygonyx iris* (abundant an year ago) and *Hydrobasileus croceus*. In addition, there were quite many *Neurobasis chinensis* and *Heliocypha biforata*. Two females of the latter for a long time oviposited into a large piece of wood floating in a calm place behind the boulder. Near each, a male sat on the wood, the males often flew and fight with each other in the air. Good photos by Nikita can be seen at http://www.asia-odonata.net.

There were some tiny pools with dirty water in hollows of granite rocks at the bank. At one of those, a very cautious male of *Orthetrum chrysis* periodically appeared and perched, several females of *N. tullia* were also noticed nearby, and on January 6 I collected a male *Ceriagrion olivaceum*. In shady parts of the bank, elusive and very cautious *Coeliccia yamasakii* of both sexes could be noticed perching on branches and leaves near the ground.

On January 6 I made a three hour trip from that place in the Krating valley along a path which raised along some ridge. The first day was overcast and even with a bit of dribbling rain. First I passed some glade with a very numerous congregation of *Vestalis gracilis* of both sexes, and entered a regular and quite even rainforest. The path went for several kilometres raising gradually. There were few insects, but once I met first a female, and perhaps a kilometre further a male of a modest damsel which appeared to be *Coeliccia kazukoae*. They were steady perchers, quite cautious to be startled by a finger pressing the camera button (so that a flying insect was photographed), but immediately returned to the same leaf. It was quite strange to find them in the depth of rainforest quite far and above from water, while in the valley there were only *C. yamasakii*. The path raised to a gentle crest, and huge smooth rocks appeared and were becoming more and more frequent, then it raised a local top clad with the same regular rainforest and started to descend. I had to turn back. At that time, the sun appeared permanently. On my way back, below the level of rock, individuals of *Gynacantha* started to occur. They were absent when I went along the path an our or two ago and were obviously activated by the sun. They were startled from bushes, flew several metres with a wavy flight, being hardly traceable against a motley background, and sat again onto lower bush branches. There were one G. male of *G. bayadera* (photographed) and two individuals of *G. subinterrupta* (the male was photographed).

January 7-9 we spent in Cambodia and returned to Pattaya on 9th at night, accommodated at the middle of Jomtien beach. Next three days we regularly visit quite a large pond with nympheas which was hided apart from the sea and bordered with some trees. There were many regular *O. sabina, C. servilia, D. trivialis* and some *D. chalybea* at this pond. It was regularly patrolled by *A. guttatum* and *Tramea t. euryale*., and an ovipositing female of *A. guttatum* was recorded. There were plenty of emerging grass at banks, and it was full of *A. femina, A. pygmaea* and *Ceriagrion auranticum*, many in tandems. Besides, On January 10 I took a motobiker and visited the valley of some rivulet crossing the highway just south of Pattaya. Approaching the valley, I took it as very promising. I entered a flat and even sedge floodplain bog, partly with a shallow water. Such a habitat in Siberia would be full of odonates (*Lestes* and *Sympetrum*) but appeared lifeless here, not counting a female of *N. tullia*. Closer to the river, slow and dirty, there were some swamps with *Typha* and sedge, but again with only scarce commonest species such as *I. senegalensis, O. sabina, N. tullia, D. trivialis*. However, at the solid bank of the rivulet, on leaves of the same bush under a tree shade, there perched males (one of each species) of *Pseudagrion rubriceps* and *P. australasiae*. As usually, quite a lot of *Pantala* flew among trees, and I collected *P. congener*. Downstream of the highway, the water overflew over the floodplain grown up with tall and fresh grass and numerous trees. *A. femina* and *A. pygmaea* abounded in grass, on its top perched many *N. tullia* and few *A. panorpoides* while *Rhyothemis phyllis* flew high between the trees.

On January 13 I had to revisit Khao-Khitchakut to take the forgotten films, and on this occasion I decided to visit the top of the Yot Khao Phrabart mountain. The car carried me to the huge and lifeless water reserve at its foot. There was a wide brick-red (laterite) road cut through the rainforest which lead to the top, and numerous small open trucks was going to and for carrying immense people (mostly school children) up and down. It was a very intensive pilgrimship to the mountain top which was believed to bear Buddha's footprints and where some other sacral places were situated. There were crowds of people there, many devoted people of both sexes in white cloths lived in tents just at the sides of the paths, a huge portrait of the King was being mounted at a huge rock by two monks wearing yellow cloths. I was the only European there. Everybody were very much surprised seeing me, they all smiled, some men shook my hand, and most of schoolgirls pronounced slowly "My name is..." behind my back, recollecting their English lessons (but none spoke the very name).

There were enormous smooth rocks at the top and a much lower and small-leafed forest. And no odonates. Along the road through the rainforest, only two species occurred in sunny places of the road: some *Aciagrion pallidum*, and *Neurothemis intermedia atalanta*, the latters sometimes aggregated in very large quantities – this appears to be a species most readily dispersing to mountain tropical forests.

On January 12 and 14 we visited the Chan-ta-Then valley, at Kao-Khieow, descending from quite a sudden moderate mountain range crossed by a highway to Pattaya. The range is clad by a forest which last season was completely dry: dry were even the bamboo and palm leaves in the understorey. This time the forest looked quite green, and only the tallest trees stood without leaves. A peculiarity of the valley was abundance of wild bananas. There were a great diversity of insects, and I must say that the rich species set of butterflies almost completely differed from that observed in Khao-Khitchakut (and I was quite happy with this circumstance). Odonates were also abundant. Along the river, there were many pales of *Orthetrum glaucum* percing on boulders. They were of two types, with pruinosed and dark thorax, and at first glance looked as different species, but an examination of the hamuli proved their identity and being most probably age morphs. Among them, in less quantities occurred *O. chrysis*. I observed oviposition of a female *O. chrysis* at sandy banks of a 'window' of running water between stones (no male was seen), and then in the same 'window' an ovipositing female of unknown libellulid species: of the same size but with a contrasted stripy yellow-black abdomen. n a more or less flat lower section of the valley, with pools of slowly current waters among boulders, there were several *Neurothemis fulvia* (many), *N. fluctuans, Trithemis festiva* (many), *T. aurora* (one male), *P. congener* (one male) and in grass of a more flat widened section there were many *N. tullia* and few *Copera vittata, Ceriagrion olivaceum, Aciagrion borneense* (2 females found). I several times observed a very spectacular behaviour of *N. fulvia*: a female laid eggs into the water while a male nearby slowly fluttered in a vertical position almost contacting with the water surface with the tip of his abdomen; once such a male suddenly grasped the female and they flew to bushes in a tandem . In shady places in a more steep part of the valley, there were very numerous individuals of both sexes of *C. yamasakii*: sometimes 2-3 individuals sat on the same leave. Here we rarely met resting *T. tillarga*. Besides, there were *A. fenestrella* and *V. gracilis*. As usual, any small sunny gap in the mountain forest was occupied by several individuals of *N. intermedia atalanta*. On the second day, I was lucky enough to see and photograph a female of *Hydrobasileus croceus* which sat on a bush in front of me at the path going along the gorge. Of interesting phenomena, we were struck with enormous permanently moving congregations of Opiliones at shady rocks.

On a bank of a large pond near the headquarters of this small wildlife sanctuary, we recorded *A. femina, A. pygmaea, I. senegalensis, P. rubriceps, Copera marginipes, Brachydiplax farinosa* or *sobrina, B. chalybea, N. fulvia, N. tullia, C. servilia.*

On January 15, we revisited the 'coral island' of Ko Lan. The abandoned concrete swimming pool with bad shallow water was at its place, but mostly lacked odonates. There were some *O. sabina, B. contaminata, D. trivialis* and *P. congener* but no damselflies, *Trithemis, Rhyothemis* and *Macrodiplax cora*, present in abundance last year. In shrubbery facing the coast I found several *Aciagrion borneense* of both sexes, without any connection with water. Near the cost on an opposite side of the island I found a pool with water surface polluted with oil, but several *Tramea transmarine euryale* patrolled it in the air, and several *R. phyllis* flew at some grove edge. On the hill, there occurred very few *Pantala* and more frequent *Tramea* (opposite to the previous year).Altogether during this visit we observed 49 odonate species. Of them, last year in the same places (except for the Khao-Chamao National Park) and for the same period of time we did not see the following 16 species: *Neurobasis chinensis, Libellago lineata, Heliocypha biforata, Agriocnemis nana, Aciagrion borneense* (this time widespread and frequent), *Pseudagrion rubriceps, Ceriagrion olivaceum, Coeliccia yamasakii, C. kazukoae, Gynacantha bayadera, Gynacantha subinterrupta, Anax guttatus* (there were no Aeshnids at all last time), *Orthetrum glaucum, O. chrysis, O. pruinosum, Diplacodes nebulosa*. Of those, *A. borneense* and *A. guttatus* were not previously recorded in Chon Buri Province (Hämäläinen & Pinratana, 1999). Such

species as *A. pallidum, D. trivialis, L. asiatica, N. tullia, N. intermedia, N. fulvia* were very scarce last January but abundant this time. At the same time, this year we did not see some (8) species met last year: *Ceriagrion indochinense, Onychargia atrocyana, Protosticta khaosoidaoensis, Epophthalmia sp., Rhodothemis rufa, Pseudothemis jorina, Zygonyx iris, Macrodiplax cora*. This may indicate fluctuation of species' abundance, perhaps with respect to climatic conditions of a given winter.

To see some photos of odonates taken at this trips, see the same two sources: http://pisum.bionet.nsc.ru/kosterin/odonata/odonata.htm and http://www.asia-odonata.net (searching for the authors Oleg Kosterin and Nikita Vikhrev).

Again, it was Matti Hämäläinen who consulted me patiently after this second trip. I am also grateful for Rory Dow, England, for valuable consulting and help with literature.

3. Data for new provincial records.

Species, for the first time recorded for Chon Buri Province

Aciagrion borneense Ris, 1911.

1 female collected – Pattaya, Jomtien beach, a wasting land at Jomtien Holiday Hotel, 3.01.2006.

2 females collected – Pattaya environs, Ko-Lan Island, dry grass among bushes on a slope facing the southern coast, 15.01.2006.

1 female collected and released – Chan-ta-Then River valley below the road from the national park headquarters, 14.01.2006.

Aciagrion pallidum Selys, 1891

1 male photographed - Pattaya, a swamp with tall grass surrounded with a tiny forest, near the Jomtien Beach, between B. O. Guesthouse and Metro Jomtien Condotel, 26.01.2005

1 male 1 female collected – the same place, 2.01.2006.

2 males 1 female collected – the Sai-Kaew beach near Pattaya, sides of a road going through shrubbery at the coast, 3.01.2006.

2 males 1 female collected – the same place, 11.01.2006.

Onychargia atrocyana Selys, 1865

2 females collected - the same place, 2.02.2005

Pseudothemis jorina Forster, 1904.

1 male collected - the same place, 28.01.2005

1 male photographed – the Sai-Kaew beach near Pattaya, a deep pool in a spiny bamboo forest near the beach: 2.02.2005

Anax guttatus (Burmeister, 1839)

1 male collected – the same place, 3.01.2006.

Epophthalmia sp.

2 exuviae closely on a large tree trunk about 1.5 m above the ground and about 10 m from the water - Pattaya, a chain of very shallow pools with muddy banks, along a road boing parallel to the Jomtien Beach, behind the Nature Park Resort, 1.02.2005.

Species, for the first time recorded for Rayong Province

Aristocypha fenestrella (Rambur, 1842)

1 male visually - Khao-Chamao – Khao-Wong National Park, the closest rivulet with a rocky bed and waterfalls, surrounded with an evergreen forest Khao-Chamao waterfalls, 31.01.2005.

Prodasineura autumnalis (Fraser, 1927)

1 male visually - Khao-Chamao – Khao-Wong National Park, a pond at the headquaters, 30.01.2005.

1 male and 1 female photographed – An almost stagnant Khao-Chamao River and muddy pools nearby S of Khao-Chamao village, 31.01.2005.

Brachythemis contaminata (Fabricius, 1793)

Several visually – the same place, 31.01.2005

Brachydiplax farinosa Kruger, 1902 (identified by the body pattern and the number of antenodals)

1 male photographed - the same place, 31.01.2005.

Trithemis aurora (Burmeister, 1839)

3 young males collected, 1 mature male photographed + many visually – the same place, 31.01.2005.

1 male photographed - The Khao-Chamao Waterfalls (see at *A. fenestrella*), 31.01.2005.

1 male visually + 1 male photographed - the pond in the Khao-Chamao - Khao-Wong Natl. Park, as above at *P. autumnalis*, 30.01.2005.

Neurothemis intermedia atalanta Ris, 1919

1 female captured and released - the pond as above, 10.01.2005.

Species, for the first time recorded for Chanthaburi Province

Hydrobasileus croceus (Brauer, 1867)

1 young male captured and released – the Khao-Khitchakut National Park, the Krating rivulet above the waterfalls, with a stony bed and surrounded with an evergreen forest, 30.01.2005.

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