ODONATOLOGICAL ABSTRACTS

1976

(5318) LIN, Q.-b., 1976. The Jurassic fossil insects from western Liaoning. *Acta palaeontol. sin.* 15(1): 97-116, pls 1-3 excl. (Chin., with Engl. s.). — (Nanking Inst. Geol. & Paleontol., Acad. Sinica, Chi-Ming-Ssu, Nanking, P.R. China). Archaeogomphus labius gen. n., sp. n. and Pseudosamarura largina gen. n., sp. n. from the Jurassic of Liaoning, China are described and illustrated. — (*Abstracter's Note:* Archaeogomphus Lin is preoccupied by Archaeogomphus Williamson, 1919).

1978

(5319) MIZUTA, K., 1978. Ovipositing strategy in Sympetrum species. *Insectarium* 15(5): 104--109. (Jap., with Engl. title). — (Hiroshima Agric. Coll., Saiji-cho, Higashi-Hiroshima, 724, JA).
Among the subjects reviewed are: egg morphology (with reference to the relation between the egg size and the length of the female abdomen), frequency of oviposition in relation to population density, site selection, fecundity, etc. Emergence curves for some spp. are also provided.

1979

(5320) BARRION, A.T., 1979. *Arthropod food web of Philippine rice agroecosystems.* Stencil (Pap. 10th Natn. Conf. PCCP, Manila), 32 pp. (Available from: Ent. Dept, Int. Rice Res. Inst., P.O. Box 933, Manila, The Philippines).
In the checklist of the arthropod taxa of the Philippine rice agroecosystem 16 odon. spp. are listed.

1981

(5321) BARRION, A.T., P.C. PANTUA, J.P. BANDONG, C.G. DELA CRUZ, F.A. RAYMONDO, M.D. LUMABAN, R.F. APOSTOL & J.A. LITSINGER, 1981. Food web of the rice brown planthopper in the Philippines. *Int. Rice Res. Newsl.* 6(1): 13-15. — (Ent. Dept, Int. Rice Res. Inst., P.O. Box 933, Manila, The Philippines).
Agriocnemis pygmaea and A. f. femina are listed among the predators of Nilaparvata lugens.

(5322) DYCK, V.A., N.Q. KAMAL, P.E. KENMORE, A.C. DULAY & F.V. PALIS, 1981. *Suppression of planthopper and leaffolder populations by natural enemies, especially predators.* Stencil (Pap. Saturday Seminar, Ent. Dept, Int. Rice Res. Inst., Manila, Apr. 25, 1981), 12 pp. (Available from: Ent. Dept, Int. Rice Res. Inst., P.O. Box 933, Manila, The Philippines).
In a greenhouse experiment with the 3rd-4th instar nymphs of Sogatella furcifera, the predation capacity (no. prey killed day) was the highest in Agriocnemis pygmaea (2.09). The dragonfly was followed in voracity by the spider Lycosa pseudoannulata.

(5323) FOX, A.D., 1981. The dragonflies of Ceredigion. *Nature in Wales* 17(4): 202-212. (Nature Conserv. Council, Fraser Darling House,

9 Culduthel Rd, Inverness, IV2 4AG, UK).
The 1956-1980 records (21 spp.) from Ceredigion (= Cardiganshire), W. Wales, UK, are stated, the distribution of each sp. is described, and 8 different site associations are defined.

1982

(5324) ISHIKAWA, H., 1982. [Experiments on territorial behaviour of Orthetrum albistylum speciosum, resulting in an unusual tandem formation]. *Nature & Insects* 17(14): 29. (Jap.). — (6-2, Higashigaoka 1-chome, Meguro-ku, Tokyo, 152, JA).
The set-up is described in which 1 out of the 3 experimental males formed a tandem with a dead specimen of the same sp., offered in a tree-fork. The observations are discussed in terms of sex recognition.

(5325) [LIN, Q.-b.], 1982. Insecta. *In:* [Palaeontological atlas of East China, Pt 3: Mesozoic and Cenozoic], pp. 149-155, pls 64-66 excl. Edited by Nanjing Inst. Geol. & Mineral Resour.; — published by Geol. Publication Office, place not stated. (Chin.). — (Author: Nanjing Inst. Geol. & Palaeontol., Acad. Sinica, Chi-Ming-Ssu, Nanjing, P.R. China).
Odon. are dealt with on pp. 149-150. Gasophlebia taianensis gen. n., sp. n. (Anisozygoptera incertae sedis) and Laragithemis pilifera gen. n., sp. n. (Libellulidae) are described and figured.

(5326) [LIN, Q-b.], 1982. Insecta. *In:* [Palaeontological atlas of Northwest China: Shansi and Kansu Provinces, Pt 3. Mesozoic and Cenozoic], pp. 70-83, pls 30-32 excl. Edited by Xi'an Inst. Geol. & Mineral Resour.; — published by Geol. Publication Office, place not stated. (Chin.). — (Author: Nanjing Inst. Geol. & Palaeontol., Acad. Sinica, Chi-Ming-Ssu, Nanjing, P.R. China).
Odon. are dealt with on pp. 74-75. Guyuanaeschnidia eximia gen. n., sp. n. (Aeshnidae) is described and figured.

(5327) MIZUTA, K., 1982. Territory of the genus Orthetrum. *Insectarium* 19(8): 198-207. (Jap., with Engl. title). — (Hiroshima Agric. Coll., Saiji-cho, Higashi-Hiroshima, 724, JA).
Detailed review of territorial behaviour in various spp. Some features of reproductive behaviour are also considered.

(5328) SHIRAISHI, K., 1982. [Records of Leucorrhinia intermedia ijimai]. *Nature & Insects* 17(14): 15. (Jap.). — (1-612, Ikebukuro, Toshima-ku, Tokyo, 170, JA).
2 new localities of this rare sp. are stated from eastern Hokkaido. The material includes 3 almost hyaline female specimens from Tsurui-mura.

(5329) SHIRAISHI, K., 1982. [A dark winged female of Chlorogomphus brunneus]. *Nature & Insects* 17(14): 32. (Jap.). — (1-612, Ikebukuro, Toshima-ku, Tokyo, 170, JA).
C. b. keramensis is endemic to the Keruma Archipelago, W of the Okinawa-honto Island. The female is peculiar by its inferior size, extensive brown wing markings, and by the lack of yellow markings on the abd. seg. 4-6. A female with these features (save for a larger size) was taken at the Okinawa-honto, which is inhabited by the nominate form. A photograph of the specimen is included.

(5330) TAKETO, A., 1982. [Some dragonfly species from Fukui prefecture]. *Nature & Insects* 16(14): 14. (Jap.). — (2-3-22, Ishibiki, Kanazawa, 920, JA).
Onychogomphus viridicostus and Somatochlora viridiaenea atrovirens are recorded from Fukui for the first time, and new records are given of 3 other, locally rare spp.

1983

(5331) ARAI, Y., 1983. [Tandem formation of male Sympetrum r. risi with other species]. *Nature & Insects* 18(3): 46. (Jap.). (1233-2, Oaza Sueno, Yorii-machi, Osato-gun, Saitama, 369-12, JA).
Tandems were observed with S. e. eroticum (no details) and with S. infuscatum (3 min., no attempt at copulation, but no female refuse behaviour; then oviposition, with the male

perched nearby, followed by 5 unsuccessful male attempts to seize the female).

(5332) ARAI, Y., 1983. [Davidius fujiama recorded in Fukushima prefecture]. *Nature & Insects* 18(4): 37. (Jap.). (1233-2, Oaza Sueno, Yorii-machi, Osato-gun, Saitama, 369-12, JA).
A female; first prefectural record.

(5333) BAN, Y. & H. KATO, 1983. [Aquatic insect fauna of the peat bogs in Midagahara, Mt Tateyama, Toyama prefecture]. *Nature & Insects* 18(3): 46-47. (Jap.) — (Nishio Higashi Senior High Sch., 1-4, Ohsato, Kojima-cho, Nishio, 445, JA).
Larvae of Aeshna juncea, A. nigroflava, Cordulia aenea amurensis and Sympetrum striolatum imitoides were collected at the elevation of 1900 m.

(5334) CAMPBELL, J.M., 1983. An atlas of Oxfordshire dragonflies. *Occ. Pap. Oxfordshire Mus.* 3: 1-34. — (Available, at £ 1.05 plus postage, from: Dept Mus. Services, Oxfordshire Co. Council, Fletcher's House Woodstock, Oxon OX7 1SP, UK).
Distribution maps of 28 spp., with brief comments and statements of ecological requirements for each sp. The nomenclature used is obsolete (Agrion for Calopteryx, Sympetrum scoticum for S. danae).

(5335) EDA, S., 1983. [Dragonflies on stamps in the world, fifth report]. *Nature & Insects* 18(5): 24-25. (Jap.). — (3-4-25 Sawamura, Matsumoto, Nagano, 390, JA).
Continuation of the series, listed in *OA* 4139. It deals with 3 postage stamps, issued in 1982 by St Helena (Sympetrum dilatatum), Guernsey (unidentified anisopteran) and by the Republic of South Africa (a Mesozoic fossil in a landscape). The famous Japanese stamps issued after the Great Kato Earthquake are also reproduced.

(5336) EDA, S., 1983. [Iconographic works on dragonflies, Pt 1, Pt 2]. *Nature & Insects* 18(6): 29-32, (8): 26-29. (Jap.).— (3-4-25 Sawamura, Matsumoto, Nagano, 390, JA).
20 Japanese iconographical books on dragonflies, published between 1904-1937, are described. The oldest of these is S. Matsumura's *"Nippon Senchu Zukai"*. Photographs of title pages, covers and/or text samples are also provided.

(5337) GOFFART, P., 1983. *Contribution à l'étude des Odonates des torbières du plateau des Tailles.* Mém. Licen. Sci. Zool., Univ. Catholique Louvain, IV+172 pp. — (Unité Ecol. & Biogéogr., Univ. Catholique Louvain, 4-5 place Croix du Sud, B-1348 Louvain-la-Neuve).
The monograph is organised into 5 chapters, dealing with faunistics of the odon. of the Tailles Plateau marshes, Belgium (20 spp.), with autecology and behaviour of Sympetrum danae, and with the structure and composition of the local odon. communities.

(5338) HONDA, K., 1983. [Epiophlebia superstes at Saroma-cho, Hokkaido]. *Nature & Insects* 18(3): 47. (Jap.). — (No. 23, Katsura-so, 2-1-20, Nishi-shinagawa, Shinagawa-ku, Tokyo, 141, JA).
More than 30 males were patrolling along a swampy stream, June 9, 1982.

(5339) HONDA, K., 1983. [Tanypteryx pryeri found at Hinoemata-mura, Fukushima prefecture]. *Nature & Insects* 18(5): 35. (Jap.). — (No. 23, Katsura-so, 2-1-20, Nishi-shinagawa, Shinagawa-ku, Tokyo, 141, JA).
The first documented prefectural record.

(5340) KARUBE, H., 1983. [A new locality of Aeshna juncea]. *Nature & Insects* 18(4): 37. (Jap.). — (1-7-34, Tsurumi, Tsurumi-ku, Yokohama, 230, JA).
2 larval specimens are recorded from a pond in Sengoku-hara, Hakone, Kagawa Prefecture.

(5341) LIN, Q.-b., 1983. Cretaceous succession of insect assemblages in China. *Zitteliana* 10: 393-394. — (Nanking Inst. Geol. & Paleontol., Acad. Sinica, Chi-Ming-Ssu, Nanking, P.R. China).
The Cretaceous non-marine sediments are well developed both in North and South China, and yield the richest insect fossils in eastern Asia. The Coptoclava and Solusiparorpa as-

semblages of Lower Cretaceous, and the Siculocorixa assemblage of the Upper Cretaceous are briefly discussed and references are made to the Odon.

(5342) MATSUKI, K. & J.C. LIEN, 1983. On a collection of the libellulid dragonflies of Taiwan. *Kyushu mushinokai Kaishi* [*Bull. Kyushu ent. Soc.*, Kumamoto] 1983(5): 1-53. (Jap., with Engl. title). — (Second Author: Taiwan Prov. Inst. Infectious Diseases, P.O. Box 125, Nankang, Taipei, Taiwan).
Records of 36 spp., with a checklist of the libellulid spp. known to occur in Taiwan.

(5343) MATSUKI, K. & J.C. LIEN, 1983. The cordulegastrid fauna of Taiwan (Odonata). *Chô Chô* 6(5): 2-7. (Jap., with Engl. title and captions). — (Second Author: Taiwan Prov. Inst. Infectious Diseases, P.O. Box 125, Nankang, Taipei, Taiwan).
Records of Anotogaster sieboldii ssp., Chlorogomphus b. brevistigma, C. risi and C. suzukii are listed, and figs of the adult structural features and habitus photographs are provided.

(5344) MATSUKI, K. & J.C. LIEN, 1983. The calopterygid fauna of Taiwan (Odonata). *Chô Chô* 6(8): 2-12. (Jap., with Eng. title). — (Second Author: Taiwan Prov. Inst. Infectious Diseases, P.O. Box 125, Nankang, Taipei, Taiwan).
Records of Matrona basilaris ssp., Mnais andersoni tenuis, Psolodesmus m. mandarinus and P. mandarinus dorothea are listed, and photographs of the adults and figs of terminalia and ultimate instar larvae are presented.

(5345) NAGASU., 1983. [Ischnura senegalensis caught in a spider's web]. *Nature & Insects* 18(9): 12. (Jap.). — (Naka 4-9-27, Satte-machi, Kita-katsushika-gun, Saitama, 340-01, JA).
A female, caught by Argiope breunnichii; with a photograph.

(5346) OHSAWA, W., 1983. [Ceriagrion nipponicum in Kanagawa prefecture]. *Nature & Insects* 18(6): 37. (Jap.). — 3-13-7, Nishikanagawa, Kanagawa-ku, Yokohama, 221, JA).
First prefectural record (♂).

(5347) TAKEUCHI, H., 1983. [Hibernating Aciagrion migratum]. *Nature & Insects* 18(9): 12. (Jap.). — (27-3-502, Matsugatani, Hachioji, Tokyo, 192-03, JA).
A hibernating female was found on a twig, 5 m above the ground, on Jan. 11, 1983. (Cf. also *OA* 4261).

(5348) ZENTOH, K., 1983. [Stylogomphus suzukii taken in Fukui prefecture]. *Nature & Insects* 18(1): 35. (Jap.). — (12-1, Shinmei 1-chome, Matsuoka-cho, Yoshida-gun, Fukui, 910-11, JA).
First prefectural record (5 ♂).

(5349) ZESSIN, W., 1983. Zur Taxonomie der jung-paläozoischen Familie Meganeuridae (Odonata) unter Einbeziehung eines Neufundes aus dem Stefan C der Halleschen Mulde (DDR). *Freiberger ForschHft.* (C) 384: 58-76, pls 1-5 excl. (With Engl. & Russ. s's). — (Thälmann-Str. 30, DDR-2700 Schwerin, GDR).
Classification of the Meganeuridae is revised, Carpentertypus gen. n. is erected for Typus durhami Carpenter, and Stephanotypus schneideri gen. n., sp. n. is described from the Stephanian C (Upper Carboniferous) of the Halleschen Mulde, GDR. — All known spp. are listed and their dimensions and venational features are stated. The recognized subfamilies are Meganeurinae, Typinae, Oligotypinae, Carpentertypinae sfam. n., and Kargalotypinae sfam. n.

1984

(5350) BEGUM, A., M.A. BASHAR & M. NASIRUDDIN, 1984. Studies on the gut contents of six species of final instar dragonfly nymphs. *J. Asiatic Soc. Bangladesh* (Sci.) 10(1): 7-15. — (Dept Zool., Univ. Dhaka, Dhaka-2, Bangladesh).
Analysis of the gut contents of 1 gomphid and 5 libellulid spp. indicated that the diet of the ultimate instar larvae mainly consists of chironomid larvae and annelids. Algal colonies (Microcystis) were also abundant, and chitinous fragments, empty egg shells and chironomid pupae were found to some extent.

(5351) BLYTH, J.D., T.J. DOEG & R.M. St. CLAIR, 1984. Response of the macroinvertebrate fauna of the Mitta Mitta river, Victoria, to the construction and operation of Dartmouth Dam. 1. Construction and initial filling period. *Occ. Pap. Mus. Victoria* 1(2): 83-100. — (Biol. Surv. Dept, Mus. Victoria, 71 Victoria Crescent, Abbotsford, Vic. 3067, AU).
Contains a reference to the relative abundance of Aeshnidae and Gomphidae (p. 99), without specific names (Australia). — (Cf. also *OA* 5353).

(5352) BULIMAR, F., 1984. Agrion lindeni Selys 1840 (Insecta-Odonata), specie nouă pentru fauna României. — [Agrion lindeni Selys 1840 (Insecta-Odonata), new species for the fauna of Romania]. *Studii Cerc. Biol.* (Biol. Anim.) 36(2): 75-80. (Rom., with Engl. s.). — (Centrul de cercetari biologice, Calea-23-August 20 A, Iasi, RU).
The morphology is described and figured in detail, and statements on ecology and geographic range are made.

(5353) DOEG, T.J., 1984. Response of the macroinvertebrate fauna of the Mitta Mitta river, Victoria, to the construction and operation of Dartmouth Dam. 2. Irrigation release. *Occ. Pap. Mus. Victoria* 1(2): 101-127. (Biol. Surv. Dept, Mus. Victoria, 71 Victoria Crescent, Abbotsford, Vic. 3067, AU).
Contains references to odon. abundance in different types of current velocity, without specific names (Australia). (Cf. also *OA* 5351).

(5354) GROOTAERT, P. & L. BAERT, 1984. *Livret-guide de la collection F. Carpentier: une introduction à l'entomologie.* Inst. Roy. Sci. Nat. Belgique, II+44 pp. Price: bFr. 20.-. (Available from: Inst. Roy. Sci. Nat. Belg., 29 rue Vautier, Bruxelles).
A guide through the exhibit collections of the late Prof. Fritz Carpentier (1890-1978), in the odonatol. world particularly well known for his work on the morphology of the Meganeuridae. (For obituary cf. *OA* 2998).

(5355) HELMING, W., M. WOIKE & K.-H. CHRISTMANN, 1984. Naturschutzgebiet "Schwarzes Wasser" bei Wesel — Zustand, Gefährdung und Sanierung. *Niederrh. Jb.* 15: 37-72. — (First 2 Authors: Landesanstalt f. Ökol., Leibnizstr. 10, D-4350 Recklinghausen, FRG).
Contains a list of 23 odon. spp., recorded in the "Schwarzes Wasser" Nature Reserve, District Düsseldorf, FRG.

(5356) JÖDICKE, R., 1984. Lerchen, Lurche und Libellen. *NaturMag. Draussen* 33: 38-47. — (Happelter 15, D-4054 Nettetal-1, FRG).
Notes on the odon. fauna of the Maas-Schwalm-Nette Nature Park (Holland-Germany), without a species list.

(5357) MARCHANT, R., P. MITCHELL & R. NORRIS, 1984. A distribution list for the aquatic invertebrates in the lowland region of the La Trobe river, Victoria. *Occ. Pap. Mus. Victoria* 1(1): 63-79. — (Biol. Surv. Dept, Mus. Victoria, 71 Victoria Crescent, Abbotsford, Vic. 3067, AU).
Ischnura heterosticta, Austrogomphus querini, and various odon. genera and higher taxa are listed on pp. 67, 74 (Australia). (Cf. also *OA* 5360).

(5358) MATSUKI, K. & J.C. LIEN, 1984. The platycnemidid fauna of Taiwan (Odonata). *Chô Chô* 7(1): 41-49. (Jap., with Engl. title).
(Second Author: Taiwan Prov. Inst. Infectious Diseases, P.O. Box 125, Nankang, Taipei, Taiwan).
Records of Coeliccia cyanomelas, C. flavicauda, Copera annulata and C. marginipes are listed, and figs of the adult structural features are presented.

(5359) MATSUKI, K. & J.C. LIEN, 1984. The euphaeid fauna of Taiwan (Odonata). *Chô Chô* 7(3): 15-22. (Jap., with Engl. s.). (First Author: Mihara 3-23-5-103, Asaka-shi, Saitama 351, JA).
Records of Euphaea formosa and Bayadera b. brevicauda are listed, the adult speciemens, terminalia and larval structural features are figured.

(5360) METZELING, L., A. GRAESSER, P.

SUTER & R. MARCHANT, 1984. The distribution of aquatic macroinvertebrates in the upper catchment of the La Trobe river, Victoria. *Occ. Pap. Mus. Victoria* 1(1): 1-62. — (Biol. Surv. Dept, Mus. Victoria, 71 Victoria Crescent, Abbotsford, Vic. 3067, AU).
4 spp. and various odon. genera and higher taxa are listed (pp. 44, 53) from the La Trobe, Australia. — (Cf. also *OA* 5357).

(5361) MOKRUSHOV, P.A., 1984. Prostranstvennaya orientaciya strekoz roda Lestes. — [Spacial distribution in Lestes dragonflies]. *In:* Orientaciya nasekomyh i kleshchey, pp. 89-101, Tomsk Univ., Tomsk. (Russ.). — (Inst. Zool., Acad. Sci. Ukrain. SSR. Ul. Lenina 15, USSR-252000 Kiev-30).
Observations and experiments on maiden flight, return flight to water, and distribution at the oviposition site in L. barbarus, dryas and sponsa are stated and briefly discussed.

(5362) RODRIGUES CAPITULO, A.R., 1984. Una nueva especie del genero Cyanogomphus Selys, incluyendo la description del ultimo estado preimaginal (Odonata, Gomphidae). *Revta Soc. ent. Argent.* 43: 329-336. (With Engl. s.). — (Inst. Limnol., C.C. 55, AR-1923 Berisso).
C. noval sp. n. and its ultimate instar larva are described and figured (♂ holotype, ♀ allotype: Parque Nacional Palmar de Colón, Entre Rios, Argentina. The new sp: is compared with the type material of C. uncatus Fraser, and the distinctive features are pointed out.

(5363) ROGATIN, A.B. & M. BAYZHANOV, 1984. Laboratornye issledovaniya deystviya opytnoy partii bakterial'nogo preparata Bacillus thuringiensis (serotip-14) na razlichnye gruppy gidrobiontov. — [Laboratory study of the effect of an experimental series of a bacterial preparation of Bacillus thuringiensis (serotype 14) on various groups of hydrobionts]. *Izv. Akad. Nauk kazakh. SSR* (Biol.) 1984(6): 22-25. (Russ., with Kazakh s.). — (Inst. Zool., Kazakh Acad. Sci., Alma-Ata, USSR).
Ischnura elegans and Sympetrum danae are among the hydrobionts studied. The preparation was pathogenic for chironomids, but it was not toxic for the other hydrobionts.

1985

(5364) ARTIGAS, J.N., E. CAMPUSANO & U. GONZALEZ, 1985. Contribucion al conocimiento de la biologia y habitos alimentarios de Salmo gairdneri (Richardson, 1836) en Lago Laja (Chile). *Gayana* (Zool.) 49(1/2): 3-29. (With Engl. s.). — (First Author: Depto Zool., Fac. Cien. Biol., Univ. Concepción, Casilla 2407, Concepción, Chile).
The biological aspects and the alimentary habits of the rainbow trout in the Lake Laja, Chile, are analyzed. Odon. were found in 13.48% of fish examined, and represented 0.12% of the total food items.

(5365) ASAHINA, S., 1985. Contributions to the taxonomic knowledge of the Megalestes species of continental South Asia (Odonata, Synlestidae). *Chô Chô* 8(10): 2-18. (With Jap. s.). — (Takadanobaba 4-4-24, Shinjuku-ku, Tokyo, 160, JA).
The imagines of M. major, irma, micans, chengi, lieftincki and kurahashii, and the ultimate larval instar of M. major are described and figured.

(5366) ASAHINA, S., 1985. Illustrated common dragonflies of Southeast Asia, V. *Chô Chô* 8(10): 33-35. (Jap., with Engl. title & Latin nomenclature). — (Takadanobaba 4-4-24, Shinjuku-ku, Tokyo, 160, JA).
7 spp. of the genera Brachythemis, Diplacodes, Acisoma, Brachydiplax, Crocothemis and Tholymis are treated.

(5367) ASAHINA, S., 1985. A list of the Odonata recorded from Thailand. Part X. Libellaginidae. *Chô Chô* 8(11): 2-19. (With Jap. s.). — (Takadanobaba 4-4-24, Shinjuku-ku, Tokyo, 160, JA).
8 chlorocyphid spp., pertaining to the genera Libellago, Indocypha and Rhinocypha, and incl. I. leucoura sp. n. (♂ holotype: Kanchanaburi, 18-VI-1983), are described and figured.

(5368) ASAHINA, S., 1985. A list of the Odonata

recorded from Thailand. Part XI. Euphaeidae. *Chô Chô* 8(12): 18-38. (With Jap. s.). — (Takadanobaba 4-4-24, Shinjuku-ku, Tokyo, 160, JA).
8 spp., pertaining to the genera Anisopleura, Bayadera, Euphaea and Dysphaea, and incl. E. khaochongensis sp. n. (♂ holotype: Khao Chong, 24-VI-1965), are described and figured. — (*Abstracter's Note:* According to a pers. comm. from the Author, the new sp. may be conspecific with E. pahyapi Hämäläinen, 1985. [*Odonatologica* 14: 341-344]).

(5369) ASAHINA, S., 1985. Notes on the genus Planaeschna with special reference to two species from Thailand. *Gekkan-Mushi* 175: 16-20. (Jap., with extensive Engl. s.). — (Takadanobaba 4-4-24, Shinjuku-ku, Tokyo, 160, JA).
P. chiengmaiensis and P. intersedens are described and figured.

(5370) BAEZ, M., 1985. *Las libelulas de las Islas Canarias.* Aula de cultura de Tenerife (Enciclopedia canaria No. 28). 48 pp., 9 col. pls excl. — Author: Depto Zool., Univ. de La Laguna, Tenerife, Islas Canarias, Spain).
Attractive little "monograph" on the Odon. of the Canary Islands, Spain. It provides a general introduction on the biology of the order, keys to the adults and larvae, and detailed descriptions of the 10 spp. known to occur on the islands. The regional bibliography, glossary of technical terms and col. photographs of all spp. will be also useful.(Cf. also *OA* 4606).

(5371) BANKS, M.J. & D.J. THOMPSON, 1985. Lifetime mating success in the damselfly Coenagrion puella. *Anim. Behav.* 33: 1175-1183.
(Dept Zool., Univ. Liverpool, Brownlow St., P.O. Box 147, Liverpool L69 2BX, UK).
The major determinant of mating success is the number of days a male spends at the breeding site, conditioned by its adult lifespan. The weather also has a significant effect. It is misleading to draw conclusions about the action of sexual selection from studies of daily, rather than lifetime, reproductive success. Evidence is provided supporting the view that variance in male reproductive success is neither a proof of sexual selection, nor a measure of its intensity.

(5372) BEGUM, A., M.A. BASHAR & M. NASIRUDDIN, 1985. Laboratory studies on the food preference of six species of final instar dragonfly larvae. *Bangladesh J. Zool.* 13(1): 31-34. — (Dept Zool., Univ. Dhaka, Dhaka-2, Bangladesh.
2 gomphid and 4 libellulid spp. were studied. Chironomid larvae were the preferred food, but to a lesser extent they preyed upon chironomid pupae, mosquito larvae, annelids and ostracods.

(5373) BEGUM, A., M.A. BASHAR & NASIRUDDIN, 1985. Studies on the life history of Crocothemis servilia servilia Drury (Anisoptera: Libellulidae). *Dhaka Univ. Stud.* (B)33(1): 137-143. — (Dept Zool., Univ. Dhaka, Dhaka-2, Bangladesh).
In the laboratory there were 10 larval instars (prolarva incl.), and the life cycle from oviposition to emergence was completed in 72-79 days. All instars are figured and described.

(5374) BELYSHEV, B.F., 1985. Ob osnovnyh biogeograficheskih podrazdeleniyah mirovoy sushi osnovanii rasprostraneniya rasteniy, pozvonochnyh zhivotnyh i strekoz (Odonata). — [On the principal biogeographic division of the world as revealed by the distribution of plants, vertebrates and dragonflies (Odonata)]. *Izv. vses. geogr. Obshch.* 117(1): 31-34. (Russ.). — (Ul. Kirova 76, kv. 7, USSR-630102 Novosibirsk).
Maps based on the distribution of the 3 groups of organisms are provided and briefly discussed.

(5375) BELYSHEV, B.F. & A. Yu HARITONOV, 1985. Novyy relikovyy podotryad strekoz (Insecta, Odonata). — New relict suborder of dragonflies (Insecta, Odonata). *Izv. sib. Otdel. Akad. Nauk SSR* (Biol.) 1985(3): 51-53. (Russ., with Engl. s.). — (First Author: Ul. Kirova 76, kv. 7, USSR-630102 Novosibirsk).
On the basis of the "absence" of the discoidal cell, the Archeoptera subord. n. is erected. It embraces the families Hemiphlebiidae (dc "lacking" i.e. open "in both wings") and Chorismagrionidae fam. n. (for Chorismagrion Morton; dc open in forewing).

(5376) BEUTLER, H., 1985. Biometrische und variationsstatistische Untersuchungen an der Kleinlibelle Cercion lindeni (Selys, 1840), mit Beschreibung einer neuen Unterart (Odonata, Coenagrionidae). *Ent. Abh.* 49(4): 69-83. (With Engl. s.). — (Frankfurter Str. 23b, DDR-1230 Beeskow, GDR).
The allopatric occurrence of C. lindeni in the "Mark Brandenburg", GDR, is discussed in terms of biometrical features and the supposed age of the sp. The said populations are considered to represent a separate ssp., C. lindeni lacustre ssp. n. The adult and exuviae are described and figured, and the generic status of Cercion is discussed and confirmed.

(5377) BEUTLER, H., 1985. Zum Emergenzrhythmus und Geschlechterverhältnis von Anax imperator Leach (Odonata). *Ent. Nachr. Ber.* 29(3): 109-112. (With Engl. & Russ. s's). — (Frankfurter Str. 23b, DDR-1230 Beeskow, GDR).
Over 350 exuviae were collected during 2 yr in the area of Beeskow, GDR. There is a difference in the emergence period between 1- and 2 seasons old larvae. The 2 sexes emerge synchronously, and the male : female numbers may occasionally approach a 1:2 ratio.

(5378) BORKIN, S.S., 1985. Archilestes grandis in Wisconsin (Odonata: Lestidae). *Great Lakes Ent.* 18(2): 96. — (Invert. Zool. Sect., Milwaukee Public Mus., Milwaukee, WI 53233, USA).
Several specimens are recorded from Honey Creek, Milwaukee Co. Wisconsin, USA (8-IX--1978, 20-IX-1984).

(5379) BOUDOT, J.-P., G. JACQUEMIN & P. GOUTET, 1985. Présence et abondance dans les Vosges de trois odonates méconnus: Aeschna subarctica Walker (Aeschnidae), Somatochlora alpestris Selys et Somatochlora arctica Zetterstedt (Corduliidae). *Bull. Soc. Hist. nat. Moselle* 44: 217-228. (With Engl. s.). — (First Author: Centre de Pédologie Biol., 17 rue Notre-Dame des Pauvres, B.P. 5, F-54501 Vandoeuvre-Lès-Nancy).
Various localities of the 3 spp. from the Vosges Mts, France are reported (peat bogs, alt. 550--1230 m). The habitats are briefly described and the local status of the spp. is stated.

(5380) BOULARD, M., 1985. Les odonates de Sérignan, II: L'étonnant comportement de ponte de l'Agrion de Linden (Zygoptères: Coenagrionidae). *Entomologiste* 41(6): 269-272. — (Lab. Ent., Mus. Natn. Hist. Nat., 45 rue de Buffon, F-75005 Paris).
Detailed account of the oviposition behaviour in Cercion lindeni, with photographs and comparative notes on some other coenagrionids. — (For pt I cf. *OA* 3293).

(5381) BURMEISTER, E.-G., 1985. Perithemis lais (Perty, 1833) aus der Brasilienausbeute von J.B. v. Spix und C.F.Ph. v. Martius (Odonata, Libellulidae). *Spixiana* 8(2): 119-121. (With Engl. s.). — (Zool. Staatssammlung, Münchhausenstr. 21, D-8000 München-60, FRG).
The lectotype of P. lais (Perty), deposited in the Zool. State Coll., München, FRG, is designated.

(5382) CARCHINI, G., E. ROTA & C. UTZERI, 1985. Lista aggiornata degli odonati italiani e loro distribuzione regionale. *Fragm. ent.* 18(1): 91-103. (With Engl. s.). — (Dipt. Biol. Anim., Univ. Roma, Viale dell'Università 32, I-00185 Roma).
On the basis of unpublished data and of the literature published after 1956, a checklist is presented of the Italian odon. fauna (82 spp.), indicating their occurrence in each of the 19 Italian administrative regions. A number of selected spp. is discussed, and it is concluded that the regional fauna of southern Italy is still insufficiently examined.

(5383) COKER, S. & T. FOX, 1985. *West Wales dragonflies.* Mountain Books, Dyfed. VI+168 pp. [ISBN 0-9510892-0-X]. Price: £ 4.50. — (Publishers: Mountain Books, Mountain, Clarbeston Rd, nr Haverfordwest, Dyfed SA63 4SG).
Attractive volume of A5 size, on the fauna (25 spp.) of the County of Dyfed, Wales, United Kingdom. 1 km species distribution maps are compiled from over 6000 records. Also included are 8 general maps, 8 tabs and 26 line

drawings. The text includes a history of recording (from 1900 onwards), habitats, status, flight periods, distribution, conservation and detailed descriptions of 11 of the best sites. The objective of the authors was to provide an aid to local odon. conservation and a guide to local odonatologists. These 2 aims will be certainly very well served by this book, which ranks, without doubt, among the best works of this type. The biographic notes on the authors, presented as an appendix, will be certainly also appreciated.

(5384) COLLINS, N.M., 1985. *Insects as candidates for the Bern Convention.* 59 pp. Council of Europe, Document SN-VS (85) 20 — [6.667.09.3]. — (IUCN Conserv. Monit. Cent., 219c Huntingdon Rd, Cambridge CB3 0DL, UK).
The Council of Europe Standing Committee for the Bern Convention invited IUCN/CMC to prepare this report on threatened European insects, with a view to assessing them as candidates for the Appendices to the Convention. Criteria for insects to be listed on the Bern Convention are proposed, incl. the need for such spp. to be seriously threatened, easily identifiable and not on the margins of their ranges in Europe. A total of 22 spp. are proposed, incl. 2 Odon., viz. Macromia splendens ("Vulnerable") and Coenagrion freyi ("Endangered").

(5385) DONATH, H., 1985. Zum Vorkommen der Flussjungfern (Odonata, Gomphidae) am Mittellauf der Spree. *Ent. Nachr. Ber.* 29(4): 155--160. (With Engl. & Russ. s's). — (Jahnstr. 6, DDR-7960 Luckau, GDR).
Gomphus flavipes, G. vulgatissimus and Ophiogomphus serpentinus at present still occur in the middle course of the Spree, GDR. Onychogomphus forcipatus has not been recorded since 1943. The ecology of these spp. is discussed and conservation measures for the fauna of the Spreewald are advocated.

(5386) DONNELLY, T.W., 1985. Emision de selos postales Libelulas de El Salvador. *Bol. filatelico, El Salvador* 71(12): 1-10. (Engl. & Span.). — (2091 Partridge Lane, Binghamton, NY 13903, USA).
Notes on biology and ecology of 6 spp. depicted on a dragonfly stamp series of El Salvador (issued Dec. 9, 1985). The original drawings were produced by V. Hellebuyck. 1277 Lincoln, Sherbrooke, Que. J1H 2H8, Canada (price of a folder autographed by the artist: US $ 6.-). — (For more details cf. *Selysia* 15(1): 11; 1985).

(5387) DUNN, R., 1985. Annual dragonfly (Odonata) report — 1985. *Quart. J. Derbyshire ent. Soc.* 82: 11-13. — (4 Peakland View, Darley Dale, Matlock, Derbyshire, DE4 2GF, UK).
Comments on the 1985 Derbyshire (U.K.) records of 19 spp.

(5388) *FRASERIA.* Newsletter of the S.I.O. National Office in India, Pondicherry, No. 9 (Dec. 1, 1985). — (c/o Dr B.K. Tyagi, Vector Control Res. Cent., I.C.M.R., Medical Complex, Indira Nagar, Pondicherry-605006, India).
The issue contains a report on the Eighth Int. Symp. Odonatol., Paris (by *B.K. Tyagi*) and various editorial notes, incl. brief obituaries for D.E. Kimmins, D.C. Geijskes and Mrs P. Tobin. The Second Indian Symp. Odonatol. is scheduled to take place during Oct.-Nov., 1986, at Dehra Dun (c/o Dr S.K. Sangal, Zool. Dept, D.A.V. Coll., Dehra Dun-248001, U.P., India). There are no scientific notes in this issue.

(5389) GEENE, R., 1985. Libelleninventarisatie [Dragonfly inventarisation]. *Trias* 14(4): 25--26. (Dutch). — (Roomtuintjes 91, 1093 SV Amsterdam, NL).
Some considerations on the current state of dragonfly inventarisation in The Netherlands.

(5390) HÄMÄLÄINEN, M., 1985. Ischnura pumilio (Odonata, Coenagrionidae) Suomelle uusi sudenkorentolaji. Ischnura pumilio (Odonata, Coenagrionidae) a new dragonfly species to the Finnish fauna. *Notul. entomol.* 65(4): 155. (Finn., with Engl. s.). (Tullilaboratorio, Tekniikantie 13, SF-02150 Espoo-15, Finland).
A male was collected in a newly made garden pond in Espoo nr Helsinki. Habitat selection of

the sp. is briefly discussed, and its distribution (expanding northwards) is presented with emphasis on the Baltic area records. In a postscript, J.K. Valle's (1942, *Annls ent. fenn.* 8: 114-126) record of I. pumilio from Mongolia is corrected: Sahlberg's material is from the Alma-Ata region, USSR. — (Abridged Engl. translation is available from the SIO Central Office).

(5391) HÄMÄLÄINEN, M., 1985. Sudenkorentohavaintoja Pohjanmaalta ja Lapista. — [Dragonfly records from Ostrobothnia and Lapland]. *Notul. entomol.* 65(4): 160. (Finn.). — (Tullilaboratorio, Tekniikantie 13, SF-02150 Espoo-15, Finland).
New provincial or range extension records of 5 spp in Finland. — (Abridged Engl. translation is available from the SIO Central Office).

(5392) HÄMÄLÄINEN, M., 1985. [published Jan. 28, 1986]. Macromia chaiyaphumensis sp. n. (Odonata, Corduliidae) from northeast Thailand. *Annls ent. fenn.* 51: 105-107. — (Tullilaboratorio, Tekniikantie 13, SF-02150 Espoo-15, Finland).
M. chayaphumensis sp. n. (holotype ♂: Phu Khieo Wildlife Sanctuary, Chaiyaphum prov., 10-VI-1984, deposited in Zool. Mus., Univ. Helsinki) is described, illustrated and compared with the related M. urania Ris.

(5393) HAMMOND, C.O. & R. MERRITT, 1985. *The dragonflies of Great Britain and Ireland.* Harley Books, Colchester, Essex. 116 pp. Second ed., paperback. [ISBN 0-946589-14-3]. — Price: £ 9.75.
A slightly revised and updated edition of the volume listed in *OA* 4311.

(5394) HARPER, P.-P. & L. CLOUTIER, 1985. Composition et phénologie de communautés d'insectes du Lac Geai, lac dystrophe des Laurentides (Québec). *Naturaliste can.* 112(3): 405-415. (With Engl. s.). — (Dépt Sci. Biol., Univ. Montréal, C.P. 6128, Montréal, Qué., H3C 3J7, CA).
Emergence trap collections of adults from Lac Geai, a small bog lake in the Laurentians, Quebec, Canada, serve as a basis for the description of the composition and phenology of the insect fauna. The littoral zone harbours the richest benthic community, dominated by Enallagma boreale. The other odon. spp. listed are Helocordulia uhleri and Lestes eurinus.

(5395) HENNES, M., 1985. Zum Vorkommen von Libellen (Odonata) und Tagfaltern (Lepidoptera) im NSG "Stellmoor-Ahrensburger Tunneltal"/Kreis Stormarn. *Seevögel* 6 (Fest. Schr. Vauk): 15-27. — (Mühlenweg 17, D-5110 Alsdorf, FRG).
The odon. fauna (26 spp.) of this nature reserve in Schleswig-Holstein, FRG is dealt with with references to habitat ecology, species status and population density.

(5396) ISHIDA, K. 1985. Odonata. *In:* T. Kawai, [Ed.], An illustrated book of aquatic insects of Japan, pp. 33-124, Tokai Univ. Press [ISBN 4-486-00884-7 C3645]. (Jap., with Engl. title). — Price: ¥ 8500. — (Author: 3-201, Aioiyama-danchi, 1-148, Hisakata, Tenpaku-ku, Nagoya, 468, JA).
Brief descriptions, keys and very useful figs of the larvae of the Japanese taxa.

(5397) JACQUEMIN, G., J.-P. BOUDOT, P. GOUTET & F. SCHWAAB, 1985. Présence d'Epitheca bimaculata Charp. en Lorraine (Odonata, Corduliidae). *Bull. Soc. Hist. nat. Moselle* 44: 229-242. (With Engl. s.). — (First Author: Biol. Insectes, Univ. Nancy, B.P. 239, F-54056 Vandoeuvre-Lès-Nancy).
Between 1980-1983, E. bimaculata was recorded from 4 localities in the Lorraine, France. The breeding habitats, emergence and behaviour are described, the general distribution of the sp. is discussed, and a number of photographs of emergence are presented.

(5398) JÄNICKE, M., 1985. Zum Vorkommen von Hirschkäfer (Lucanus cervus), Spanischer Flagge (Callimorpha quadripunctaria), Blauflügel-Prachtlibelle und Gebänderter Prachtlibelle (Calopteryx virgo, C. splendens) im Bezirk Gera. *Veröff. Mus. Gera* (Naturw.) 11: 19-22. — (Malzplan 2, DDR-6520 Eisenberg, GDR).
Map of, and comments on the distribution of

C. virgo and C. splendens in the district of Gera, German Democratic Republic.

(5399) KAISER, H. & H.-J. POETHKE, 1985. Evolution stabiler Paarungsstrategien bei Libellen. *Verh. dt. zool. Ges.* 78: 209 [Abstract only]. (With Engl. title). — Lehrstuhl Biol. Ökol., Univ. Aachen, Kopernikusstr. 16, D-5100 Aachen, FRG).
The evolution of stable mating strategies in Odon. is briefly outlined.

(5400) KLERK, N.M., 1985. *De invloed van de temperatuur op de groei en de ontwikkelingsduur van de laatste larvale stadia van Erythromma viridulum Charp. (Odonata: Coenagrionidae).* — [*The infuence of temperature on the growth and development duration of the late instars of Erythromma viridulum Charp. (Odonata: Coenagrionidae)*]. M. Sc. thesis, Dept Exp. Ent., Univ. Amsterdam. III+56 pp. (Dutch). — Privately published; available from the author: Justus van Effenstr. 30, Utrecht, NL).
75% of the larvae hybernate at the F-2 stage, but a complete synchronisation does not occur. It is argued that the temperature prevailing during the first few days of an instar could be responsible for its duration. The physiological adaptations to temperature variation are discussed.

(5401) LAVOIE-DORNIK, J. & J.-G. PILON, 1985. La prédation et les transformations de l'appareil visuel chez les odonates. *Revue ent. Québ.* 30(1/2): 35-43. (With Engl. s.). — (Dépt Sci. Biol., Univ. Montréal, C.P. 6128, Montréal, Qué., H3C 3J7, CA).
Predation represents the principal cause of transformations in the odon. visual system. Most of these modifications, observed during the growth of this structure during the passage from aquatic to aerial life, are uniform within the entire order. However, some other transformations, which are responsible for the evolution of compound eyes, provide Anisoptera with a better efficiency in prey capture. Finally the primary and secondary role of vision in prey capture observed in anisopteran and zygopteran larvae (respectively) reveal the presence of 2 different modes for adult compound eye acquisition.

(5402) LEGGOTT, M. & G. PRITCHARD, 1985. The effect of temperatures on rate of egg and larval development in population of Argia vivida Hagen (Odonata: Coenagrionidae) from habitats with different thermal regimes. *Can. J. Zool.* 63(11): 2578-2582. (With Fr. s.). — (Second Author: Dept Biol., Univ. Calgary, Calgary, Alberta, T2N 1N4, CA).
The hypothesis was tested that isolated populations of A.vivida living in habitats with different thermal regimes would show similar rates of egg and larval development when reared at any constant temperature. Eggs from 3 populations developed and hatched normally over the temperature range 12.5-32.5° C, but development rates at 15 and 20° C were faster in a population from a habitat with daily and annual fluctuations in temperature (Deep Creek, Idaho, USA) than in a population from a more stable geothermal regime (Banff, Alberta, Canada), which were in turn faster than in a population from a geothermal site with damped annual fluctuations (Alberta Canyon, BC, Canada). However, differences between slope or intercept values for the regressions of development time on temperature from the 3 sites were not statistically significant. Growth rates for Deep Creek larvae were also generally higher than for Banff larvae at all temperatures in all instars, but few of these differences were statistically significant. An estimate of 2600 degree-days above 11.25° C for completion of egg and larval development leads to prediction of a 1-year cycle at Banff, a 2- or 3-year life cycle at Deep Creek, and a 3-year life cycle at Albert Canyon.

(5403) LEGRAND, J. & G. COUTURIER, 1985. Les odonates de la forêt de Taï (Côte d'Ivoire). Premières approches: faunistique, répartition écologique et association d'espèces. *Revue Hydrobiol. trop.* 18(2): 133-158. (With Engl. s.).
(Lab. Ent., Mus. Natn. Hist. Nat., 45 rue de Buffon, F-75005 Paris).
The Taï Forest is a part of the last important primary forest of W. Africa. Its features are summarized and the different odon. habitats are characterized. The odon. fauna consists of

51 spp. Chlorocypha mutans sp. n. is described and illustrated (= Libellago mutans Martin in litt.; = L. mutans Pinhey, 1967, nomen nudum). Special attention is paid to the rheophilic taxa, and a classification of the running-water odon. habitats is presented. A comparison of the regional fauna with that from the other parts of Ivory Coast is also made.

(5404) MAIBACH, A., 1985. Révision systématique du genre Calopteryx Leach (Odonata, Zygoptera) pour l'Europe occidentale. I. Analyses biochimiques. *Mitt. schweiz. ent. Ges.* 58: 477-492. (With Engl. s.). — (Mus. Zool., Palais de Rumine, 5 Place de la Riponne, C.P. 448, CH-1000 Lausanne-17).
Biochemical variation, coded by 20 loci in 26 populations of 10 W. European taxa, has been studied by means of vertical electrophoresis on starch gel. C. virgo, splendens and haemorrhoidalis are considered good, reproductively isolated spp. C. xanthostoma is assumed to represent a semispecies in the splendens complex. Clearly defined sspp. could only be identified in the C. splendens-group, viz. the nominate form and splendens caprai. (For an outstanding work on odon. systematics as revealed by electrophoresis cf. *OA* 2262; for a general review cf. *OA* 4561).

(5405) MATSUKI, K. & J.C. LIEN, 1985. Descriptions of the larvae of two species of the genus Planaeschna in Taiwan (Aeschnidae: Odonata). *Chô Chô* 8(4): 2-8. (Jap., with Engl. s.).
(Second Author: Taiwan Prov. Inst. Infectious Diseases, P.O. Box 125, Nankang, Taipei, Taiwan).
The ultimate instars of P. r. risi and P. taiwana are described, figured and keyed; they are compared with resp. P. risi sakishimana and P. milnei, both of Japan.

(5406) MATSUKI, K. & J.C. LIEN, 1985. Description of the larva of Polycanthagyna erythromelas paiwan Asahina from Taiwan (Aeschnidae: Odonata). *Gekkan Mushi* 173: 9-11. (Jap., with Engl. s.). (First Author: Mihara 3-23-5-103, Asaka-shi, Saitama, 351, JA).
The ultimata instar is described, figured and compared with that of P. melanictera of Japan.

(5407) MATSUKI, K. & J.C. LIEN, 1985. On a collection of the coenagrionid damselflies of Taiwan. *Kyushu mushinokai Kaishi* [*Bull. Kyushu ent. Soc.*, Kumamoto] 1985(6): 1-18. (Jap., with Engl. title). — (Second Author: Taiwan Prov. Inst. Infectious Diseases, P.O. Box 125, Nankang, Taipei, Taiwan).
Records of 10 spp., with a checklist of the coenagrionid spp. known to occur in Taiwan, of which the occurrence of Cercion sieboldii and Mortonagrion selenion appears doubtful.

(5408) MAUERSBERGER, R., 1985. Libellen (Odonata) von der nordbulgarischen Schwarzmeerküste. *Ent. Nachr. Ber.* 28(5): 199-207. (With Engl. & Russ. s's). — (Kölnische Str. 35a, DDR-1190 Berlin, GDR).
Comprehensive treatment of a collection (20 spp.) from the N. Bulgarian Black Sea coast, with descriptive notes and figs of Hemianax ephippiger and the Orthetrum ramburi-coerulescens-brunneum complex. 5 spp. were not previously recorded from Bulgaria, bringing the status up to 71 known spp. (cf. *OA* 647).

(5409) MAUERSBERGER R., 1985. Libellen (Odonata) des Mittleren Thüringer Waldes. *Ent. Nachr. Ber.* 29(6): 255-264. (With Engl. & Russ. s's). (Kölnische Str. 35a, DDR-1190 Berlin, GDR).
29 spp. from Gräfenroda, Thüringer Wald, GDR, are listed. Field observations on ecology and behaviour are stated for several spp., incl. Coenagrion hastulatum, Ischnura pumilio, Aeshna juncea, Cordulegaster boltoni and Leucorrhinia dubia. The change of the spp. composition, triggered by a radical habitat alteration of a pond, is described.

(5410) MIYAKAWA, K. & S. SUGIMURA, 1985. *Shiokara-tombo* [*Orthetrum albistylum speciosum*]. Shûeisha, Tokyo. 63 pp. [ISBN 4-08-254012-1 C-8345]. (Jap.). Price: ¥ 950,-. (First Author: Imafuku 1024, Kawagoe, 356, JA; Publishers: Hitotsubashi 2-5-10, Chiyoda-ku, Tokyo, 101, JA).
A splendid picture book. Text by Dr K. Miyakawa, photographs by S. Sugimura. Portraits of the authors are also provided.

(5411) NARANG, N.S., 1985. Air attack — the lives of dragonflies and damselfies. *Sanctuary Asia* 5(3): 242-250, 291-293. — (Author's address not stated).
Outline of dragonfly natural history directed at the general reader, and containing numerous (mainly col.) photographs of various Indian spp.

(5412) OLIGER, A.I., 1985. O biotopicheskom raspredelenii strekoz Doneckoy Oblasti. — Biotopic distribution of dragonflies in the Donetsk region. *Byull. mosk. Obshch. Ispyt. Prir.* (Biol.) 90(5): 25-33. (Russ., with Engl. s.). — (Dept Zool., Donetsk Univ., 46 Shchors Str., USSR-340055 Donetsk).
The 47 spp. studied in the Donetsk District are rather evenly distributed in different ecological niches of the steppe and forest-steppe areas. The very low degree of interspecific habitat competition is due to the differences in phenology, in patterns of daily activity and behaviour and to the odon. dependence upon the microlandscape conditions.

(5413) PARNOVA, R.G. & V.I. SVETASHEV, 1985. Polinenasyshchennye zhirnye kisloty v sostave lipidov tkaney vodnyh nasekomyh. — Polyunsaturated fatty acids among tissue lipids of semi-aquatic insects. *Zh. evol. Biol. Fiziol.* 21(3): 242-248. (Russ., with Engl. s.). — (First Author: Sechenov Inst. Evol. Physiol. & Biochem., USSR Acad. Sci., Leningrad, USSR).
7 spp. were investigated, incl. Aeshna grandis, Epitheca bimaculata and Sympetrum vulgatum. In total lipids of all the spp., $C_{18:2\omega6}$ and $C_{18:3\omega3}$ that are usually found in insects, were revealed. Considerable amounts of $C_{20:5\omega3}$ (at 5-15.3%) an $C_{20:4\omega6}$ (at 1-5.3%) were found as well in all the species studied. The analysis of fatty acid composition of phospholipids (PL) and triacylglycerols (TAG) from 3 individual tissues (brain, muscle, fat body) of larvae and adult A. grandis was carried out too. The brain lipids (both PL and TAG) contain higher proportions of $C_{20:5\omega3}$ than those from muscle and fat body. The highest proportion of $C_{20:5\omega3}$ in brain PL was found in phosphatidylethanolamine, especially in the plasmalogen fraction (up to 40%). Polyunsaturated fatty acids (PUFA), especially $C_{20:5\omega3}$ are present in higher proportion in PL than in neutral lipids in all investigated tissues from A. grandis. The alimentary origin of long-chain PUFA was suggested. It seems likely that the appearence of these fatty acids is due to participation of those invertebrates in food chains of aquatic associations. The data obtained are discussed in terms of the functional role of PUFA in insect lipids.

(5414) PAULSON, D.R., 1985. Odonata of the Tambopata Reserved Zone, Madre de Dios, Perú. *Revta peru. Ent.* 27: 9-14. (With Span. s.). — (Burke Mus. DB-10, Univ. Washington, Seattle, Wash. 98193, USA).
151 spp. are listed (out of 180-200 expected in the Zone), of which 47 are first records for Perú. 10 are undescribed, and another 20 spp. are as yet unidentified. The latter group may include some undescribed taxa as well. Tambopata supports the greatest species richness of Odon. of any single locality so far studied.

(5415) PETERSON, I., 1985. On the wings of a dragonfly. *Science News* 128(6): 90-91, frontispiece. (Author's address not stated).
Directed at the general reader, with the main theme: "the way a dragonfly flies may inspire new aircraft designs".

(5416) RAVIO, P., 1985. Leucorrhinia pectoralis (Libellulidae) Luhangasta. [Leucorrhinia pectoralis (Libellulidae) from Luhanka]. *Notul. entomol.* 65(4): 160. (Finn.). (Sepetlahdentie 7 B 28, SF-02230 Espoo, Finland).
The northernmost record of this sp. is presented.

(5417) ROBERTSON, H.M., 1985. Female dimorphism and mating behaviour in a damselfly, Ischnura ramburi: females mimicking males. *Anim. Behav.* 33: 805-809. (Lab. Genet., Coll. Agric. & Life Sci., Univ. Wisconsin, 509 Genetics Bldg, 445 Henry Mall, Madison, Wisc. 53706, USA).
Females of I. ramburi exhibit a simple genetic colour dimorphism in which one form is cryptic (heteromorph), and the other closely re-

sembles the more conspicuously colourful males (andromorph). Andromorphs also mimic male behaviour in interactions with males. Consequently they copulate half as often as do heteromorphs, which may give them a frequency-dependent selective advantage. Assuming that females need only mate once, excessive copulations, which average 3 h in duration, waste time for heteromorphs and may expose them to increased predation. The peculiar biology and mating behaviour of ischnurans provides a possible evolutionary context for this mimicry. The polymorphism is probably balanced by a frequency-independent selective disadvantage suffered by the more conspicuous andromorphs, through increased predation.

(5418) SÉMÉRIA, Y., 1985. In memoriam: P.-P. Grassé (1895-1985), Membre de l'Institute de France. *Neuroptera intern.* 3(4): 211-212, portrait incl. — (Author's address not stated).
Obituary for the famous French zoologist, founder and editor of "*Traité de zoologie*" (38 vols). His sole odonatol. publication was published in *livre du centenaire*, Soc. ent. Fr., pp. 657-668 (1932).

(5419) SÉMÉRIA, Y., 1985. In memoriam: Dirk Cornelis Geijskes (1907-1985). *Neuroptera intern.* 3(4): 212. (Fr.). (Author's address not stated).
Brief obituary notice.

(5420) UBUKATA, H., 1985. A preliminary description of behavior of Rhinocypha uenoi Asahina in Iriomote-Jima (Odonata: Chlorocyphidae). *Kushiro Ronshu* 17: 81-89. (Dept Sci. Educ., Kushiro Coll., Hokkaido Univ. Educ., Kushiro, 085, JA).
Notes on the territorial behaviour are presented. Due to the low population density the behavioural interactions among the conspecific individuals could not be studied.

(5421) UBUKATA, H., 1985. The Odonata collected at Mt. Taisetsu in 1984, with a discussion on the pruinescent female of Orthetrum albistylum speciosum. *Sylvicola* 3: 23-26. (Jap., with Engl. s.). (Dept Sci. Educ., Kushiro Coll., Hokkaido Univ. Educ., Kushiro, 085, JA).
Annotated list of 13 spp. A pruinescent (homochromatic) female of O. a. speciosum was captured along with the normal heterochromatic individuals. It is suggested that the pruinescence may play an adaptive role in mitigating overheating of body temperature. The phenomenon is discussed in some detail.

(5422) *WALKERIA*. Newsletter of the Canadian National Office of the International Odonatological Society — Bulletin du Bureau national canadien de la Société odonatologique internationale, Thunder Bay, Ont., No. 2 (Dec. 1, 1985). — (c/o Dr K. Deacon, 121 Banning St., Thunder Bay, Ont. P7B 3J1, CA).
General and national news items on the SIO, and some requests from the membership, e.g. *M. Savard* (184 Eymard Nord, Alma, Qué., G8B 5H9) requires Canadian material of Gomphus descriptus, and *J.J. Daigle* (2166 Kimberly Lane, Tallahassee, FL 32301, USA) is offering a long list of N. Am. spp. in exchange for a number of specified taxa. Obituary notices for D.C. Geijskes and D.E. Kimmins are also included.

(5423) WOOLLEY, V., 1985. Calopteryx virgo L. The Beautiful Demoiselle. *Vasculum* 70(4): 51. — (Author's address not stated).
Recorded from Durham City, UK (July 6, 1985).

(5424) YOUSUF, M. & M.Y. CHISHTI, 1985 [?]. Damselflies of Faisalabad. *Proc. 3rd Pakistan Congr. Zool.*, Faisalabad, pp. 58-59. — (Dept Ent., Univ. Agric., Faisalabad, Pakistan).
12 spp. are listed from the Faisalabad District, Pakistan. Peculiar is the record of Pseudagrion ceylanicum. — (*Abstracter's Note:* The publication is not dated, but it was probably published late in 1985; the Congress took place on Dec. 27-29, 1982).

(5425) ZIMMERMANN, W., 1985. Bibliographie der in der DDR von 1951 bis 1983 erschienen Publikationen über Libellen (Odonata). *Ent. Nachr. Ber.* 29(3): 103-108. (With Engl. & Russ. s's). (Mus. Natur. Parkallee 15, Post-

fach 217, DDR-5800 Gotha, GDR).
A bibliography of 136 titles, pertaining to the odon. fauna of the German Democratic Republic, and published during 1951-1983 is presented along with a graph, showing the annual increase of the literature.

(5426) ZIMMERMANN, W., 1985. Die Libellenfauna Thüringens — Kenntnisstand und bedrohte Arten. *Veröff. Mus. Gera* (Naturw.) 11: 32-38. — (Mus. Natur, Parkallee 15, Postfach 217, DDR-5800 Gotha, GDR).
Checklist of the odon. fauna (66 spp.) of Thuringia, GDR, with comments on the status of the locally endangered spp. (22 spp., i.e. 44.8% of the fauna).

1986

(5427) (Anonymous), 1986. [New videotape on dragonflies and damselflies]. *BioScience* 36(2): 134. [Announcement Notice].
The Pennsylvania State University has released 5 new videotapes, incl. one titled "The dragon and damsel", describing the odon. life cycles. For ordering information or a free preview copy contact the Audio Visual Services, Pennsylvania St. Univ., Special Services Bldg, University Park, PA 16802, USA.

(5428) BELLE, J., 1986. Waarnemingen van Ischnura elegans (Vander Linden, 1820) op de Zeeuwse eilanden (Odonata: Coenagrionidae). — Observations of Ischnura elegans on the islands of the province of Zeeland, The Netherlands. *Ent. Ber. Amst.* 46(3): 35. (Dutch, with Engl. s.). — (Onder de Beumkes 35, 6883 HC Velp, NL).
Local records.

(5429) BIEDERMANN, J., 1986. Schützen, was wir schätzen. *In:* FBP, [Eds & Publs], Mit Herz und Mut für Liechtenstein, pp. 6-7, Vaduz. — (In Blacha, FL-9494 Planken, Liechtenstein).
Nature conservation statements in a political programme pamphlet, issued on the occasion of the 1986 Parliament Elections by the Fortschrittliche Bürgerpartei of Liechtenstein. The text does not contain any references to dragonflies; the publication is listed here solely as a biographic source on this well known student of the Liechtenstein odon. fauna (born Nov. 26, 1944; biology teacher and nature conservationist; during several years fraction Leader of the said party in the Liechtenstein parliament, Head of the Party since Febr., 1986). The booklet contains a number of his portraits and other photographs.

(5430) BÖTTGER, K., 1986. Aspekte der Gehölzbeschattung und Zielvorstellungen der Renaturierungsmassnahmen am Unteren Schierenseebach (Schleswig-Holstein), unter besonderer Herausstellung der Odonata. *Natur Landschaft* 61(1): 10-14. — (Zool. Inst., Univ. Kiel, Olshausenstr. 40, D-2300 Kiel, FRG).
The effects of shadow caused by bank vegetation on the odon. fauna of a Schleswig-Holstein stream, northern Germany, are described and discussed with special reference to Gomphus vulgatissimus, Calopteryx splendens, Libellula fulva, Pyrrhosoma nymphula and Platycnemis pennipes.

(5431) d'HONDT, J.-L., 1986. In memoriam Roger L'Hoste (1914-1985). *Entomologiste* 42(1): 41-42. (Fr.). — (Mus. Natn. Hist. Nat., 55 rue de Buffon, F-75005 Paris).
Obituary, without reference to his odonatol. work.

(5432) DIEHL, M., D.G. SCHNEIDER, S. ZITTERBARTH & D. ORBAHN, 1986. Carl Lunau (1894-1984). *Ber. Ver. "Natur Heimat" naturh. Mus. Lübeck* 19/20: 152-159, portrait incl. (Germ.). — (Author's address not stated).
Exhaustive biography, appreciation of work and complete bibliography of C. Lunau (May 15, 1894 — Nov. 9, 1984). For the appreciation of his odonatol. work cf. *Odonatologica* 8(1979): 1-3. — Lunau's life-long passion for dragonflies is nicely reflected in the poem, written for him by his friend FRITZ WEIDE, and which is also included in the present paper: "Den Vögeln bin ich zugetan,/ ich schau auch mal 'ne Pflanze an;/ doch in den allermeisten Fällen/ besteht Natur mir aus Libellen./ — Wenn sie so übers Wasser flitzen,/ metallisch blau die Flügel blitzen,/ wenn pfeilgleich

durch die Luft sie schnellen,/ gibt es nichts Schön'res als Libellen./ — Ich kenn' die Arten ganz genau,/ sie mögen grün sein, rot und blau;/ die dunklen Farben und die hellen,/ ich lieb' sie alle, die Libellen".

(5433) FRANK, H., 1986. Jahresbericht ' 1985. *Rundschr. Wilhelmsdorf dt. Bund Vogelschutz* 1986: 1-7. — (Drosselweg 5, D-7983 Pfrungen, FRG).
On p. 3 appears a status report on the odon. fauna (43 spp., no list) of the Pfrunger Ried, Baden-Württemberg, southern FRG. A photograph of Cordulegaster boltoni is included.

(5434) *GOMPHUS.* Mededelingenblad van de belgische libellenonderzoekers — Feuille de contact des odonatologues belges, Vol. 3, No. 2 (Apr., 1986). (Dutch & Fr.). — (c/o M. Van Mierlo, Steenweg op Mol 52, B-2300 Turnhout).
The issue exceptionally has an A4 size, and represents at the same time also Vol. 5, No. 2 of the periodical *Euglena.* Its main contents consists of a preliminarily updated new edition of the Odon. of Belgium and Luxembourg (for the original atlas cf. *OA* 2622) by *N. Michiels, A. Anselin, P. Goffart & M. Van Mierlo.* — *(Abstracter's Note:* The atlas was primarily published as a "feed-back" for the numerous participants in the mapping scheme, and it is not intended for general commercial circulation. The price of the present edition is bFr. 80.-, but a revised commercial version is in preparation).

(5435) *GRACILE.* Newsletter of Odonatology. Published by the Kansai Research Group of Odonatology, Osaka, No 36 (Apr. 1, 1986). (Jap., with Engl. titles) — (c/o K. Tani, 129 Jizo-cho, Nara, 630, JA).
Obana, S.: A tentative consideration on Japanese Mnais evolution, Pt. 4 (1-2); — *Iwamoto, M.:* On some aeshnid species observed in the urbanized areas of Higashi-Osaka City, Osaka Prefecture (2-3); *Arai, Y.:* Ecological observations of sympetrum frequens in Saitama Prefecture (4-8); *Katatani, N.:* Sitting sites of some Sympetrum species in forests (9-10); — *Takeuchi, T. & O. Tabata:* A maturation determinating method for Indolestes peregrinus through dissection (11); — *Takeuchi, T.:* Reports on the meeting observing crepuscular aeshnids and the subsequent beer party (12--13); — *Obana, S.:* Report on the survey trip for Osaka-Wakayama boundary in early autumn (13-14); — *Tabata, O.:* Report on the observation meeting of Sympetrum species at Kameoka area, Kyoto Prefecture (14-15); — *Tani, K.:* "The dragonflies of Japan in colour" published (16).

(5436) HINNEKINT, B.O.N., 1986. *Dynamique de population chez Ischnura e. elegans (Vander Linden) (Insectes: Odonates) avec intérêt particulier pour les changements morphologiques de coloration, le polymorphisme des femelles et l'influence de cycles pluriannuels sur le comportement.* Thèse Docteur Univ. Sci. & Techn., Lille. (Ancien régime), XXVII+90 pp. + 86 pp. (Annexes). (With extensive Engl. section). — (Merestraat 32, B-9430 Aalst).
Laboratory and field experiments in adult I. elegans provide correction techniques for the estimation of population parameters based only on capture-recapture data. Thus it is demonstrated that males and female longevities are identical and that their sex ratio is 0.5 (= Male population fraction). Longevity measured at the water, erroneous appears to differ between sexes, and sex ratio is also biased. This bias is a function of population density, which causes a different distribution in males and females, matures and immatures, andro- and heteromorphic females, and is regulated by aggressive, territorial and mating behaviour of individuals. The female maturation period exceeds that of the male. Female polymorphism is an adaptation to population density, high density favouring andromorphs. This polymorphism is determined by monogenic autosomal inheritance with a sex-linked expression. In crowded populations, intense visual interactions between individuals occur. These cause their juvenile hormone titer to rise, which shortens maturation time, the period of morphological colour changes, and life span. This mechanism counteracts crowding, and synchronises maturation and development of sexual behaviour. In the course of their life, individuals go through a number of colour changes.

The development of teneral colours coincides with spermato- and oogenesis. The morphological colour change at sexual maturity is due to the neutralisation of toxic waste products of the protein metabolism. The aging colours are partly due to dehydration.

(5437) JUDD, S., 1986. Status of Coenagrion pulchellum. The past and present status of the damselfly Coenagrion pulchellum (Vander Linden) (Odonata: Coenagriidae) in Cheshire and parts of its adjacent counties, corresponding to the 100 km square S J. (3 3). *Ent. Rec. J. Var.* 98(3/4): 57-61. — (Dept Invert. Zool., Merseyside Co. Mus., Liverpool, UK).
The Nature Conservancy Council's view that the sp. is "fast declining and requires particular attention" is partly confirmed, but it is emphasized that because of similarities with C. puella, C. pulchellum is underrecorded in the study area.

(5438) JURZITZA, G., 1986. Die Westliche Keiljungfer schlüpft. *Tier Natur Fotogr.* 17(2): 12--13. — (Reinmuthstr. 27, D-7500 Karlsruhe, FRG).
Photographic record of emergence of Gomphus pulchellus. (*Author's pers. comm.:* Larvae collected in Durlacher Wald nr Karlsruhe late in Apr., emergence in the laboratory on Apr. 30).

(5439) KRAIEM, M.M., 1986. Contribution à l'étude hydrobiologique de trois cours d'eau du nord--ouest de la Tunisie. Présentation, physico--chimie et aperçu faunistique. *Bull. mens. Soc. linn. Lyon* 55(3): 96-104. (With Engl. s.).
(Dépt Sci. Biol., Fac. Sci., Campus Universitaire, Tunis-1006, Tunisia).
Crocothemis erythraea is the sole dragonfly reported from the rivulets of Beja, Ghezala and Ennour, NW Tunisia.

(5440) *LINDENIA*. Notiziario dell'Ufficio Nazionale Italiano della Società Odonatologica Internazionale, roma, No. 5 (Jan. 1, 1986). (c o Prof. Dr C. Utzeri, Dipt. Biol. Anim. & Uomo, Univ. Roma, Viale dell'Università 32, I-00185 Roma).
Among the news items is a preliminary announcement of the First Italian symposium of Odonatology (Oct. 6-10, 1986, Roma; c/o SIO National Office in Italy), obituary notices for D.C. Geijskes and D.E. Kimmins, and a report on the Eighth Int. Symp. Odonatol., Paris (by *C. Utzeri*). Interesting is a note (by *C. Ottolenghi*) on what appears (?) partial albinism in ?Anax imperator larvae.

(5441) *MARTINIA*. Bulletin de liaison des Odonatologues de France. No. 3 (March, 1986). — (c/o J.-L. Dommanget, 7 rue Lamartine, F-78390 Bois d'Arcy).
[*Editorial*] (1-2); — *Coppa, G.:* Inventaire et protection des odonates des Ardennes (3-5); *Cocquempot, C.:* Un appel pour les odonates du Département d'Indre et Loire (5); — *Lett, J.-M.:* Quatre nouvelles espèces d'odonates pour la Sologne et ses environs (6-7); — *Papazian, M.:* Alimentation et cannibalisme chez les odonates adultes (8-10); — Nouvelles observations sur la population de Sympetrum pedemontanum (Allioni, 1766) (Libellulidae) dans les Bouches-du-Rhône et le Vaucluse (10--11); — *d'Aguilar, J.:* L'emblème du 16 ème congres International d'Entomologie de Kyoto en 1980 (12-13); *L[egrand], J.:* La Societas Internationalis Odonatologica (S.I.O.) (14-16); — *Annonces* (17-21); *Analyses d'Ouvrages* (21-24).

(5442) MOORE, N.W., 1986. News from Specialist Groups. Odonata. *Species* 1986(1): 37-38.
(Farm House, Swavesey, Cambridge CB4 5RA, UK).
Summary of the proceedings of the 4th Conference of the Odonata Specialist Group, species Survival Commission, IUCN, held in Paris (Aug., 1985). Special references are made to the work of Prof. Allen Davies on Hemiphlebia mirabilis, and Prof. Angelo B.M. Machado on Mecistogaster. New members are Dr B.K. Tyagi (for India) and Z. Spuris (for the USSR). The Group is seeking WWF support to provide a computerized database.

(5443) RETZLAFF, H., 1986. Mitteilungen zur Insektenfauna in Ostwestfalen-Lippe. IV. *Mitt. Arb. Gem. ostwestfal.-lipp. Entomologen* 3(34):

75-79. — (Nordstr. 5, D-4815 Schloss Holte-Stukenbrock, FRG).
Records of Calopteryx splendens are reported.

(5444) SCHNEIDER, W., 1986. Designation des Lectotypus von Somatochlora meridionalis Nielsen 1935 (Odonata: Anisoptera: Corduliidae). *Ent. Z., Frankfurt/Main* 96(6): 73-78. (With Engl. s.). — (Inst. Zool., Univ. Mainz, Saarstr. 21, D-6500 Mainz, FRG).
The lectotype (♂, Italy: Lazio, Gerano, 1-VIII-1932; O. Castellani leg.; Mus. Civ. St. Nat., Milano) and the paralectotypes of S. meridionalis are designated and figured. Information on the distribution of the sp. is provided.

(5445) SCHNEIDER, W., 1986. Erstnachweis von Cordulia aenea (Linnaeus 1758) für die Türkei (Odonata: Anisoptera: Corduliidae). *Ent. Z., Frankfurt/Main* 96(7): 92-93. (With Engl. s.).
(Inst. Zool., Univ. Mainz, Saarstr. 21, D-6500 Mainz, FRG).
C. aenea is reported for the first time from Turkey (4 ♂, Karagöl NE of Ankara). The specimens are described and figured.

(5446) *SELYSIA*. Newsletter of the Societas Internationalis Odonatologica and the U.S. National Office, Vol. 15, No. 1 (March 1, 1986). — (c/o Dr M.J. Westfall, Dept Zool., Univ. Florida, Gainesville, Fla 32611, USA).
In addition to various anonymous news items and obituary notices for S. Kelner-Pillaut, D.E. Kimmins and P. Tobin, the issue contains the following signed articles: *Crowley, P.:* Eighth International Symposium of Odonatology (2-5); *Beukeboom, L.V.:* Report of the First International Student Camp on Odonatology, France, August 7-17, 1985 (5-6); — *Dunkle, S.W.:* Minter Westfall's birthday celebration party and official opening of the International Odonata Research Institute (with as appendix, "Thanks" by *M.J. Westfall* (9-11); — *Belle, J.:* Epitheca bimaculata (Charp.) rediscovered in France (Les Mazures) (13-14); — *Daigle, J.J.:* Recent collecting trips (14); — *Garrison, R.W.:* In the wilds of Baja (15-17); — *Tinkham, E. R.:* A song of spring (20). — Information on polymorphism is requested by *H.M. Robertson* (11), and announcements of the 1986 North American Odonata Collectors Meeting, and of the Italian National Symposium are made by resp. *C. Shiffer* and *C. Utzeri* (5). Of interest is the anonymous report on the appearance of the first issue of *"Malangpo"*, the newsletter of the SIO National Office in Thailand (6-7). — Of particular importance is the anonymous report on the *S.I.O. International Odonata Research Institute*, containing also the abridged text of the Memorandum of Understanding between SIO and the Florida State Collection of Arthropods (7-9).

(5447) TSUDA, S., 1986. *A distributional list of world Odonata.* Preliminary edition. Privately published, Osaka. VIII+246 pp. (Jap. & Engl.). — Price: Hfl. 70.- approx. — Available from the Author and from the SIO Central Office. — (Author: 7-17-9, Habikigaoka, Habikino-shi, Osaka Pref., 583, JA).
After publication of the "classical" Davies & Tobin catalogues (1984, 1985), the present book presents the badly needed more detailed information on the distribution of all known spp. and sspp. of the world. Dr Tsuda, who is serving as Librarian of the well known and extremely active Kansai Research Group of Odonatology, Osaka, was certainly one of the best qualified workers to undertake this task.
After a brief Preface, Introductory notes and Contents table, the first 175 pp. comprise the list of spp. and sspp., with indication of their known occurrence in over 400 countries and geographical regions. This is followed by a generic catalogue (pp. 179-196), and by 6 valuable appendages (pp. 201-241), listing the fauna of Japan (203 spp.), Thailand (240 spp.), and the Philippines (196 spp.), and giving countrywise reviews of the faunas of southeastern Asia (822 spp.), Europe (123 spp.) and southern Africa (368 spp.). All the information is computerized and a revised, enlarged edition is in preparation. Due to its preliminary character, the present edition was issued in 200 copies only. Dr Tsuda is to be warmly congratulated on this useful work, and the readers are urgently requested to render assistance with the country regional inventories to be included in the forthcoming edition.

(5448) VOGT, T.E. & J.E. McPHERSON, 1986. A list of the Odonata of the La Rue-Pine Hills Ecological Area. *Great Lakes Ent.* 19(1): 1-5. — (First Author: Zool. Sect., Illinois St. Mus., Springfield, IL 62706, USA).
A survey of the adult odon. fauna was conducted in this area (Union Co., Illinois, USA) during 1983-1985. 36 spp. are listed, incl. Telebasis byersi, which is known to occur in Illinois at Pine Hills only.

(5449) WILDERMUTH, H., 1986. Die Auswirkungen naturschutzorientierter Pflegemassnahmen auf die gefährdeten Libellen eines anthropogenen Moorkomplexes. *Natur Landschaft* 61(2): 51-55. — (Mythenweg 20, CH-8620 Wetzikon).
The conservation management adopted in a hydrological system (streams, moor) of a drumlin area in northern Switzerland (Böndlerried nr Wetzikon) is described and discussed. The local odon. fauna (Calopteryx splendens, C. virgo, Lestes virens, Leucorrhinia pectoralis) was favourably affected by the technical measures applied. — (*Abstracter's Note:* The author is a leading authority on the management of odon. habitats).