A TOPIC INDEX

FOR

ODONATOLOGICAL ABSTRACTS 1-4225

FROM

ODONATOLOGICA VOLUMES 1-12

DATE OF PUBLICATION

November 30, 1984

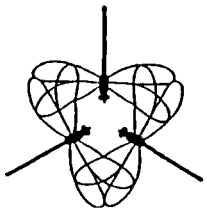
Authors' addresses:

(P.S.C. & C.M.S.)
Department of Biological Sciences
The University
Dundee, DD1 4HN, U n i t e d K i n g d o m

(J.E.H.)
Plasma Physics Library
Princeton University
Princeton
New Jersey 08544, U n i t e d S t a t e s o f A m e r i c a

and

(B.K.)
Department of Animal Cytogenetics and Cytotaxonomy
State University of Utrecht
Padualaan 8
Utrecht 2506, T h e N e t h e r l a n d s



Societas Internationalis Odonatologica
Rapid Communications (Supplements)
No. 4(B)

A TOPIC INDEX FOR ODONATOLOGICAL ABSTRACTS 1 - 4225 FROM ODONATOLOGICA VOLUMES 1 - 12

Philip S. Corbet
C. M. Scrimgeour
Jane E. Holmquist
B. Kiauta

Utrecht
1984

C O N T E N T S

PREFACE

At the end of each number of the periodical *Odonatologica* are abstracts of publications or other items that refer to Odonata and that have not been published in *Odonatologica*. These abstracts, known as 'Odonatological Abstracts' (abbreviated 'OA') range from unamplified bibliographical citations to detailed critical reviews, and they constitute a valuable literature source. Our aim in this topic index, as in the companion index to authors, is to make more accessible to odonatologists the Odonatological Abstracts in Volumes 1-12 of *Odonatologica*.

This topic index reflects my interest in ecology and behaviour. It was compiled to make easier the preparation of a review article (*Annual Review of Entomology* 25 (1980): 189-217) and later a revised edition of my book *A biology of dragonflies* (Witherby 1962; Quadrangle Press 1963; Classey 1983). The main topics (1-9), and their classification, correspond closely to the content of *A biology of dragonflies*; two others (0 and 10) have been added to accommodate the broader scope of Odonatological Abstracts, but neither of these is treated in as much detail as are the main topics. For odonatologists with interests other than mine, this index may provide points of departure in their search for relevant titles.

Topics have been classified under major categories (0-10) all but the first and last of which correspond exactly to chapters in *A biology of dragonflies*. Within each major category, topics are numbered (1.0, 1.1, 1.2 ...) in a sequence that is alphabetical except for a few topics added at the end, and except for categories 7 and 9. In the main text, topics are likewise arranged in numerical order, each being followed by a list of related topics (to facilitate cross-reference) and by the appropriate OA numbers. It will be seen that some topics have no OA number assigned to them (e.g. 5.27), and that some topic numbers lack a designation (e.g. 7.47). Such entries serve no function: they remain in the index only because it is awkward to remove them.

Although I have tried to be systematic and consistent when assigning abstracts to topics over the seven years during which the index was compiled, I am sure that inconsistencies exist - with respect to the extent of coverage and to the assignment of abstracts to topics. I hope that difficulties caused by overlap between topics will be mitigated by the listing of related topics after each topic designation. I may well have overlooked, and therefore not listed, some topics in abstracts of some publications, especially those that contain a wide range of subjects. To say this emphasises that the index can serve as a guide, but not as a comprehensive concordance, to topics represented in Odonatological Abstracts.

Not infrequently an OA entry records only the contents of a serial or periodical, giving authors and titles of contributions but no more than this. Such entries are listed here only under the designation '0.10', which includes contents of journals. Thus no attempt has been made to infer from the titles, or to incorporate in the index, topics from papers so listed.

Appendix I lists topics in numerical order.

Appendix II shows where abstracts appear in the volumes of *Odonatologica* to which this index refers.

Philip S. Corbet

October 1984

Department of Biological Sciences,
The University,
Dundee, U.K.

TOPIC INDEX

0. GENERAL AND MISCELLANEOUS

0.0 General (see also: 0.11)

0.1 Bibliographies

0.2 Catalogues; checklists (see also: 9.4)

3632 3721 3725 3727 3728 3741 3808 3823
3842 3844 3853 3854 3867 3879 3915 3937
3981 4056 4059 4062 4073 4074 4125 4129
4132 4169 4170 4205 4206 4207

0.3 Common names (see also : 0.4, 5.14)

48 258 745 746 1016 1064 1085 1206
1702 1713 1915 1962 2388 2420 2459 2509
2538 2541 2763 2799 2867 2870 2871 2935
2940 3001 3023 3072 3073 3128 3174 3242
3339 3482 3530 3557 3661 3693 3694 3805
3806 3809 4036 4047 4049 4212 4213

0.4 Folklore (see also: 0.3, 5.14)

42 118 462 745 851 1303 1778 1847
1870 2270 2306 2763 2867 2870 2871 3072
3242 3495 3975 4031 4032 4109

0.5 General works on the biology of Odonata: popular

25 31 35 36 48 110 120 131
196 229 234 239 240 283 474 478
518 523 550 566 583 586 587 606
642 701 822 874 875 1062 1171 1195
1228 1286 1311 1331 1399 1415 1418 1421
1422 1471 1517 1530 1539 1540 1541 1563
1564 1592 1612 1616 1617 1638 1708 1716
1740 1742 1752 1753 1758 1809 1815 1830
1837 1840 1854 1858 1880 1902 1915 1934
1946 2020 2067 2072 2075 2078 2085 2121
2124 2129 2137 2138 2141 2143 2161 2175
2201 2211 2219 2223 2270 2287 2353 2367
2391 2420 2431 2503 2514 2560 2562 2565
2571 2577 2600 2642 2676 2686 2687 2702
2703 2748 2752 2849 2914 2964 2968 3015
3023 3067 3103 3156 3161 3191 3265 3283
3286 3337 3351 3397 3409 3433 3434 3455
3465 3514 3517 3519 3537 3665 3668 3696
3746 3766 3772 3884 3892 3907 3934 3940
3943 3963 3965 3978 3989 4006 4026 4046
4047 4121 4189 4198 4200 4225

0.6 General works on the biology of Odonata: scientific (see also: 0.8)

5 473 575 582 616 653 869 889
1199 1287 1490 1506 1684 1709 1710 1726
1754 1865 1926 2171 2243 2264 2265 2266
2470 2649 2768 2779 2915 3050 3092 3464
3516 3680 3681 3796 3852 3910 4001 4044
4061 4101

0.7 History of odonatology (see also: 0.10)

77 78 86 233 235 476 482 486
487 775 909 1002 1249 1615 1770 1862
1978 2362 2419 2607 2921 2995 3016 3212
3484 3694 3749 3819 3937 3983

0.8 Identification manuals; guides; handbooks (see also: 0.6)

188 550 597 692 728 738 786 853
1041 1091 1175 1189 1194 1266 1314 1335
1380 1384 1396 1482 1489 1777 1802 1833
1843 1844 1853 1896 1922 1963 1990 2026
2029 2031 2035 2055 2061 2062 2088 2105
2209 2239 2274 2290 2323 2325 2327 2386
2387 2419 2432 2459 2500 2516 2557 2564
2591 2618 2633 2644 2655 2756 2777 2821
2824 2849 2869 2883 2911 2924 2951 2952
2961 2976 2980 2983 2997 3033 3054 3073
3128 3217 3221 3300 3314 3321 3398 3399
3526 3553 3584 3671 3676 3734 3837 3878
3949 3960 3984 4025 4044 4061 4101 4184
4215

0.9 Literature surveys; services; distribution maps; museums

74 307 317 368 392 419 559 809
810 897 1005 1114 1300 1528 1561 2361
2417 2426 2497 2713 2789 2831 2916 2921
2985 3032 3033 3124 3134 3143 3185 3216
3366 3623 3659 3660 3750 3779 4221

0.10 Meetings; colloquia; societies; journals (see also: 0.7)

2 20 91 116 137 140 158 171
181 189 191 193 194 227 228 236
238 300 301 307 319 332 341 361
398 412 430 512 513 530 531 532
575 655 659 689 702 765 808 867
898 944 950 967 1047 1084 1113 1116
1142 1152 1154 1165 1166 1187 1241 1274
1299 1344 1366 1368 1370 1395 1397 1423
1424 1431 1459 1475 1478 1523 1605 1613
1655 1712 1735 1736 1743 1768 1793 1794
1798 1799 1803 1817 1821 1884 1970 1986
2017 2049 2051 2117 2194 2202 2210 2213
2220 2228 2232 2235 2236 2237 2341 2351
2363 2371 2383 2384 2417 2464 2473 2484
2491 2526 2548 2549 2558 2574 2576 2625
2651 2652 2669 2671 2688 2706 2739 2791
2812 2814 2841 2848 2852 2858 2876 3013

3035 3044 3046 3190 3191 3214 3230 3233
3237 3258 3303 3310 3315 3316 3322 3332
3358 3399 3400 3409 3412 3419 3421 3423
3436 3437 3450 3455 3458 3514 3515 3537
3538 3544 3558 3563 3571 3595 3596 3667
3675 3679 3683 3687 3722 3751 3767 3782
3857 3886 3895 3969 3972 3990 4000 4004
4005 4090 4097 4102 4105 4108 4116 4151
4176 4185 4191 4204 4211

0.11 Miscellaneous (see also: 0.0)

1177 1291 1733 1989 2942 3870 3880 3893
3907 3941 4133

0.12 Nomenclature (see also: 9.5)

30 61 1163 2924 3758

0.13 Obituaries (see also: 0.15)

420 435 616 726 1357 1407 1522 1706
1906 1907 2057 2118 2172 2324 2442 2474
2761 2998 3126 3262 3316 3463 3510 3520
3566 3567 3607 3783 3902 3935 4071 4082
4089 4141 4214

0.14 Ornaments; art; food; exhibitions (see also: 0.4, 5.14)

156 187 262 287 511 554 562 573
578 719 890 1089 1160 1294 1564 1637
1690 1836 1874 1919 1980 2193 2249 2270
2280 2316 2547 2563 2669 2671 2686 2687
2829 2830 2953 2982 3015 3022 3086 3264
3420 3447 3694 3770 3779 3877 3947 3979
4088 4139

0.15 Personalia; lists of odonatologists (see also: 0.13)

213 242 243 413 536 542 813 846
891 981 983 1006 1064 1121 1701 1717
1852 1930 1944 1945 2048 2054 2142 2144
2145 2147 2159 2164 2199 2238 2244 2248
2275 2277 2344 2485 2520 2539 2551 2621
2651 2652 2785 2920 2921 2963 2968 2987
3029 3098 3111 3152 3164 3206 3330 3357
3381 3591 3687 3819 3905 3975 4013 4180
4199 4219

0.16 Reviews

479 484 791 792 815 859 1004 1147
1169 1194 1232 1248 1266 1301 1473 1474
1492 1548 1571 1668 1764 1765 1766 1767
1769 1771 1772 1775 1784 1787 1795 1796
1797 1838 1938 2030 2038 2040 2042 2046
2047 2052 2118 2134 2216 2221 2337 2348
2395 2466 2475 2526 2534 2547 2557 2563
2747 2771 2811 2812 2950 3187 3287 3595
3596 3723 3738 3836 3841 4063 4094 4099
4124 4194 4221

0.17 Techniques; methods:- chromosomes (see also: 9.7)

No entries

0.18 Techniques; methods:- colour preservation (see also: 5.6)

537 1186 1486 1556 1630 1899 1955 2263
2334 2553 2842 3284 3962

0.19 Techniques; methods:- curation

112 1070 1101 1122 1186 1439 2169 2292
2745 2767 2822 3085 3146 3266

0.20 Techniques; methods:- estimation of numbers (see also: 5.22)

162 207

0.21 Techniques; methods:- field methods; collecting

26 33 37 208 216 237 241 376
819 855 1025 1101 1186 1197 1657 1755
1779 1822 1903 1939 2019 2181 2300 2471
2481 2531 2842 2879 3033 3176 3278 3390
3402 3415 3565 3698 3814 3815 3873 4172

0.22 Techniques; methods:- laboratory methods

607 716 1745 1903 1904 2163 2166 2365
2366 3719 3803 4008

0.23 Techniques; methods:- marking

162 205 971 2380 2816 3123 3541 3814 4053

0.24 Techniques; methods:- photography

2036 2121 2293 2357 2407 2510 2963 3265 3415 4152

0.25 Techniques; methods:- rearing; colonisation

426 819 1261 1554 1653 1953 2076 2604 3375 3390 3415

0.26 Terminology

251 767 1905 2456 3971

1. HABITAT SELECTION AND OVIPOSITION

1.0 General

251 357 925 1112 2506 2778 2838 3014
3466 3710 4016

1.1 Behaviour (see also: 7.4, 7.33)

161 195 260

1.2 Colonisation (see also: 8.2)

787 2435 2795 2862 3070 3108 3267 3396
3592 3735 3899

1.3 Diel periodicity (see also: 4.6, 5.9, 6.3, 7.2, 7.11)

4193

1.4 Drinking (see also: 1.8, 5.5, 5.26, 7.21, 10.14)

2823 3600

1.5 Drought (see also: 1.10, 2.3, 2.10)

No entries

1.6 Fertilisation (see also: 2.4, 7.26)

No entries

1.7 Ovaries (see also: 5.18, 5.19, 10.10)

356 538 1386 2271 3430 3565 4015

1.8 Oviposition (see also: 7.2, 7.33 - 7.36)

27 35 148 161 178 179 219 298
426 495 566 579 605 693 696 804
821 892 893 924 951 989 1009 1137
1139 1192 1214 1261 1307 1308 1328 1338
1401 1445 1448 1451 1553 1839 1855 1913
2103 2175 2506 2567 2825 2872 2873 2990
3057 3066 3205 3220 3430 3491 3492 3565
3578 3582 3603 3686 3694 3753 3784 3789
3826 3977 4091 4093 4103 4117 4147 4193

1.9 Temperature (see also: 1.3, 7.11)

No entries

1.10 Temporary habitats (see also: 1.5, 2.10, 4.24, 5.27, 8.12)

146 281 1105

1.11 Energetics (see also: 3.15, 4.26, 5.32)

1451 1913

2. THE EGG STAGE

2.0 General

304

2.1 Development (see also: 10.3)

55 84 145 260 261 380 495 520
714 753 893 989 1009 1138 1222 1261
1315 1543 1976 2345 2984 3053 3220 3497
3803 4015

2.2 Diapause (see also: 2.9, 2.11, 2.12, 10.14)

348 753 893 989 1205 1261

2.3 Drought (see also: 1.5, 1.10, 2.10, 4.8, 4.24, 5.27, 8.4, 8.12, 10.14)

495

2.4 Fertilisation (see also: 1.6, 7.30)

356

2.5 Hatching (see also: 2.1, 10.3)

1219 2567 3220

2.6 Hibernation (see also: 2.1, 2.2, 2.9, 2.12, 10.3)

146 1105

2.7 Parasites (see also: 2.8)

684 1261 2567 2580 3304

2.8 Predation (see also: 2.7)

2903

2.9 Temperature (see also: 2.1, 2.2, 2.6, 10.3, 10.14)

145 495 753 4015

2.10 Temporary habitats (see also: 1.5, 1.10, 2.3, 4.8, 4.24, 5.27, 8.4, 8.12)

No entries

2.11 Photoperiod (see also: 2.2)

753

2.12 Wetting (see also: 2.2, 10.14)

2311

2.13 Energetics (see also: 3.15, 4.26, 5.32)

1451 1913

2.14 Morphology

538 877 2177 2311 3220 3494 4117

3. THE LARVAL STAGE: GENERAL

3.0 General

208 216 270 357 376 441 472 490
510 539 594 600 663 778 827 840
841 961 986 1012 1015 1017 1023 1025
1036 1039 1046 1090 1106 1108 1109 1110
1112 1126 1145 1146 1149 1150 1151 1155
1198 1204 1213 1276 1329 1342 1513 1535
1577 1676 1859 1913 1924 2123

3.1 Behaviour (see also: 3.0, 3.6, 3.10, 4.3)

69 159 169 452 525 581 667 787
879 907 917 1025 1030 1110 1123 1133
1404 1567 1859 2782 2975 3254 3404 3504
3511 3552 3706 3718 3929

3.2 Colour (see also: 3.1, 3.8)

548 1692

3.3 Compound eyes (see also: 3.1, 3.6, 3.10, 4.4, 10.13)

495

3.4 Diaphragm (see also: 3.9, 10.8, 10.11)

3196

3.5 Economic importance (see also: 3.6, 3.7, 3.8)

465 734 928 954 1052 1089 1275 1547
1863 1875 1910 1912 1928 2104 2113 2146
2155 2170 2272 2681 2962 3076 3115 3130
3170 3195 3394 3577 3701 4128

3.6 Feeding (see also: 3.1, 3.5, 3.15, 4.26, 10.2)

21 58 59 69 125 159 342 375
417 447 452 465 472 495 496 525
585 651 667 670 709 734 737 776
879 907 917 928 954 969 1052 1102
1133 1209 1216 1275 1319 1358 1373 1388
1398 1461 1547 1810 1855 1888 1889 1928
1958 1977 2037 2094 2150 2170 2191 2234
2297 2397 2398 2399 2400 2402 2421 2505
2550 2575 2593 2608 2617 2627 2668 2681

2697 2718 2719 2724 2730 2780 2797 2843
2969 2996 3008 3011 3133 3192 3209 3226
3232 3241 3254 3270 3290 3326 3391 3395
3404 3405 3524 3577 3663 3701 3702 3706
3748 3768 3802 3804 3873 3874 3896 3920
3973 4008 4136 4174 4186

3.7 Parasites (see also: 3.5, 4.16, 5.20)

94 134 172 173 343 346 347 379
397 446 468 502 544 599 622 623
624 643 725 739 740 781 825 831
835 843 937 964 1033 1089 1207 1246
1355 1365 1369 1371 1382 1559 1573 1580
1618 1759 1846 1869 1890 1951 1974 2154
2252 2294 2305 2319 2370 2385 2438 2540
2593 2680 2696 2805 2874 2890 3026 3027
3202 3502 3692 3699 3702 3703 3715 3818
3838 3912 4038

3.8 Predation on Odonata (see also: 3.5, 3.6, 3.15, 4.26)

152 471 485 617 727 749 882 922
1022 1026 1032 1063 1068 1072 1153 1259
1493 1558 1562 1576 1581 1609 1671 1678
1686 1756 1763 1848 1849 1850 1855 1859
1952 1974 2089 2123 2155 2233 2245 2246
2250 2295 2592 2895 2897 2919 2941 2994
3010 3115 3256 3329 3483 3565 3700 3705
3708 3717 3831 3929 4033 4126

3.9 Respiration (see also: 3.4, 4.20, 10.11)

3780

3.10 Sense organs (see also: 3.3, 4.4, 10.12, 10.13)

541

3.11 Temperature (see also: 4.23)

106 459 667 1272 1278 1441 1470 1494
1500 1525 1546 1582 1583 1584 1673 1827
1961 2000 2153 2397 2575 2601 2783 3045
3418 3469 3768

3.12 Pollution (see also: 3.5, 9.6)

24 85 133 196 198 365 387 390
391 458 503 572 574 628 682 747
758 827 848 931 938 957 962 994

1015 1046 1079 1181 1235 1280 1352 1360
1426 1434 1454 1472 1477 1491 1498 1500
1503 1507 1525 1527 1582 1583 1584 1602
1610 1627 1636 1648 1680 1693 1724 1773
1783 1864 1867 1941 1958 1961 1968 2000
2032 2256 2260 2267 2340 2343 2382 2433
2458 2595 2601 2611 2624 2892 2910 3011
3088 3170 3182 3184 3427 3478 3506 3618
3654 3655 3732 3829 3904 3917 3925 3926
3944 3952 4035 4040 4072 4128 4142 4164
4187

3.13 Morphology (see also: 3.3, 3.4, 3.14, 9.5, 10.1, 10.5, 10.8, 10.10, 10.12, 10.13)

4 9 119 132 139 219 294 377
378 402 403 404 405 505 522 527
543 557 631 674 677 678 679 688
714 736 761 902 930 934 942 948
961 965 977 995 1086 1191 1281 1341
1414 1508 1614 1731 1782 1801 1872 1873
1908 1922 1932 1936 1976 1977 1995 1996
2073 2074 2113 2120 2218 2289 2320 2374
2386 2459 2461 2463 2478 2500 2523 2555
2556 2606 2633 2792 2808 2825 2839 2850
2851 2893 2908 2947 2955 2969 2980 2983
2984 2993 2997 3009 3014 3068 3069 3107
3218 3268 3275 3282 3291 3321 3333 3362
3398 3439 3475 3497 3504 3525 3526 3543
3604 3676 3724 3748 3757 3764 3775 3780
3802 3846 3850 3858 3859 3860 3861 3878
3900 3984 4025 4041 4115 4134 4190

3.14 Habitat distribution (see also: 1.0, 3.0, 3.13, 10.4)

382 787 817 818 1173 1376 1391 1425
1432 1437 1450 1465 1466 1499 1505 1544
1642 1714 1731 1762 1781 1810 1818 1824
1855 1935 1959 1977 1999 2009 2059 2073
2077 2106 2155 2178 2251 2253 2261 2291
2304 2313 2331 2369 2404 2428 2440 2441
2462 2468 2494 2545 2608 2657 2685 2755
2825 2857 2859 2866 2878 2898 2975 3009
3021 3064 3095 3110 3117 3144 3148 3183
3225 3313 3356 3388 3410 3430 3469 3512
3561 3619 3704 3757 3775 3896 4016 4086
4106 4131

3.15 Energetics; biomass estimates (see also: 4.26, 5.32)

496 1436 1446 1451 1505 1585 1607 1810
1882 1924 2257 2360 2390 2647 2722 2860
2861 2864 2865 2886 2887 2898 3241 3302
3422 3708 3928 4136 4174

3.16 Interspecific competition

2123 2697 4136 4154 4157

4. GROWTH, METAMORPHOSIS AND EMERGENCE

4.0 General (see also: 10.6)

496 1017 1068

4.1 Aggregation (see also: 4.9)

No entries

4.2 Altitude (see also: 4.23, 5.4, 5.26, 10.14)

79 125 437 903 2798 3087

4.3 Behaviour (see also: 3.1, 5.5)

125

4.4 Compound eyes (see also: 3.3, 5.7, 10.13)

No entries

4.5 Diapause (see also: 4.8, 4.12, 4.13, 4.17, 4.22, 4.23, 10.6, 10.14)

880 1069 1205 1316 2868 3349 3712

4.6 Diel periodicity (see also: 5.9, 6.3, 7.2)

222 709 903 1546 1567 1731 1977 3718 3761

4.7 Digestion (see also: 3.6, 10.2)

No entries

4.8 Drought (see also: 1.5, 1.10, 2.3, 2.10, 4.24, 10.14)

199 459 558 1825 2081 2567 2609 2627 2629 2662 3061 4091

4.9 Emergence (see also: 4.15, 8.8)

56 72 129 160 163 215 222 251
285 358 374 421 566 581 607 608
609 637 720 782 804 814 855 856

903 1069 1093 1094 1183 1212 1405 1451
1604 1614 1652 1677 1731 1977 1991 2079
2284 2360 2365 2366 2401 2407 2490 2533
2588 2600 2752 2762 3079 3115 3470 3471
3565 3574 3600 3769 3834 4123 4136 4200

4.10 Endocrine organs (see also: 10.9)

No entries

4.11 Flying season (see also: 4.9, 5.13)

3009 3392 4051

4.12 Growth rate (see also: 4.5, 4.13, 4.15, 4.22, 10.6, 10.14)

55 59 84 100 261 327 426 429
447 461 491 495 496 667 714 751
814 823 893 989 1009 1029 1053 1068
1112 1179 1330 1353 1652 1908 1931 1949
1976 1994 2004 2007 2205 2208 2311 2461
2561 2631 2843 2984 3053 3291 3297 3422
3504 4015 4128

4.13 Hibernation (see also: 4.5, 4.22)

70 169 1261 4091

4.14 Latitude (see also: 4.17, 4.22, 4.23, 5.16)

No entries

4.15 Metamorphosis; moulting (see also: 4.9, 4.12, 10.6)

87 88 273 274 350 641 711 720
783 797 1587 1588 1611

4.16 Parasites (see also: 3.7, 5.20)

1591 1744

4.17 Photoperiod (see also: 4.5, 4.14, 4.22)

155 369 549 751 880 881 1200 1330
1560 1625 1626 2007 3115 3349 3536

4.18 Population size (see also: 4.25, 4.26, 5.22)

146 496 594 884 978 987 1032 1068
1105 1108 1505 2615 3565 3838

4.19 Predation on Odonata (see also: 3.8, 5.29)

56 215 2794 2958 2975

4.20 Respiration (see also: 3.9, 10.11)

1745 2699 3761

4.21 Sex ratio (see also: 4.9, 7.41)

56 99 161 222 247 495 637 1451
1913 2815 3470 3565 4193

4.22 Seasonal development (see also: 4.2, 4.5, 4.9, 4.11 - 4.15, 4.17, 4.23, 4.24, 5.13)

56 59 94 106 145 155 165 260
327 348 356 358 369 374 421 429
496 527 528 637 751 752 804 880
881 934 986 1053 1068 1069 1268 1353
1490 1505 1560 1873 1975 1988 1994 2007
2139 2178 2304 2397 2445 2572 2627 2699
2868 2901 2929 2975 2984 2993 3053 3089
3115 3223 3241 3253 3335 3349 3405 3497
3535 3543 3552 3605 3801 3875 4012 4112
4193

4.23 Temperature (see also: 3.11, 4.22, 10.14)

70 128 155 358 369 608 751 823
880 881 1069 1330 1464 3115 3297 3349
3801 3824 4015

4.24 Temporary habitats (see also: 1.5, 1.10, 2.3, 2.10, 4.8, 4.22, 5.27, 8.12)

199 260 459 668 742 818 847 947
2875 3536 3726 4081

4.25 Survivorship (see also: 3.8, 4.18, 4.19, 4.26, 5.29)

162 496 734 1068 2700 3565

4.26 Energetics (see also: 3.6, 3.8, 3.15, 4.18, 4.25, 5.32)

59 367 496 500 533 680 748 958
1028 1068 1183 1451 1913

5. ADULT LIFE: GENERAL

5.0 General

251 441

5.1 Aestivation (see also: 1.5, 2.3, 4.8, 4.22, 5.15, 5.27, 8.4)

260 818 2001 3712 3968 3997

5.2 Age (see also: 0.21, 0.22, 4.25, 5.13, 5.17, 5.18, 5.22)

1687 2319

5.3 Aggregation (see also: 5.24, 6.1, 7.15, 8.1, 8.11)

251

5.4 Altitude (see also: 4.2, 5.13, 5.26)

93 168 445 629 789 1060 1496 1981
2204 2427 2769 3446 3451 3573 3599 3605
3885 3897 3939

5.5 Behaviour (see also: 4.3, 5.29, 6.0, 7.17)

96 130 161 175 202 203 251 598
635 665 723 811 821 844 868 908
963 1001 1054 1125 1173 1857 1860 2891
2971 3347 3350 3461 3608

5.6 Colour (see also: 5.7, 5.18, 5.26, 7.19, 10.5, 10.9, 10.14)

92 93 105 157 295 359 545 612
707 800 996 1188 1302 1317 1348 1715
1975 2487 2725 2946 3160 3334 3647 3790

5.7 Compound eyes (see also: 6.2, 6.5, 7.20, 10.13)

52 350 353 467 540 648 681 699
793 832 900 916 939 3927 3999 4168

5.8 Diapause (see also: 4.22, 5.1, 5.15, 5.16)

No entries

5.9 Diel periodicity (see also: 1.3, 4.6, 6.3, 7.2)

92 149 206 251 277 298 356 373
611 635 676 693 744 844 925 980
1034 1071 1237 1445 1479 1640 1652 2080
2368 2776 2879 2971 3037 3145 3148 3793
4060 4159 4183 4212

5.10 Dispersal (see also: 7.16, 8.0, 8.3)

1529 1658

5.11 Flight physiology (see also: 10.8)

92 109 338 480 595 626 673 763
873 980 1056 1321 1860 2269 2315 2333
2437 2528 2589 2667 2673 2720 2733 2751
3161 3281 3382 3442 3472 3476 3529 3545
3601 3744 3993 3994 4057 4217 4222

5.12 Fliers (see also: 5.21, 5.26, 7.5, 10.8)

1538 1567 2217

5.13 Flying season (see also: 4.11, 4.22, 5.17, 5.18)

17 96 100 111 146 210 298 477
647 693 754 899 924 946 1075 1105
1167 1168 1224 2082 2090 2111 2178 2231
2422 2425 2428 2477 2529 2612 2626 2659
2701 2781 2930 2933 3033 3037 3073 3116
3140 3333 3359 3365 3424 3602 3616 3641
3685

5.14 Folklore (see also: 0.3, 0.4)

118 462 1016

5.15 Hibernation (see also: 4.22, 5.1, 5.8)

89 90 146 356 1105 1825 3614 3633

5.16 Latitude (see also: 4.14, 4.22, 5.13)

1640 3630 3897

5.17 Longevity (see also: 4.22, 4.25, 5.2, 5.13)

54 96 174 247 251 538 1010 1715
1994 2301 2868 3089 3424 3562 3565 3600
4068 4111 4128

5.18 Maturation period (see also: 5.2, 5.6, 5.17, 5.19, 5.28, 10.10)

161 251 363 498 609 1103 1659 1975
2301 2319 2868 3522 4193

5.19 Ovaries (see also: 1.7, 5.18, 10.10)

1623

5.20 Parasites (see also: 3.5, 3.7, 5.2, 5.17, 5.29)

1 164 343 347 354 364 489 622
623 643 644 730 825 861 949 1089
1100 1207 1246 1502 1568 1573 1591 1603
1761 1791 1845 1846 1917 1951 2065 2319
2385 2429 2616 2766 2801 2988 3121 3188
3199 3317 3505 3508 3646 3648 3649 3650
3651 3652 3692 3699 3715 3742 3743 3752
3856 3914 3988 4034 4038 4111 4178

5.21 Perchers (see also: 5.12, 5.26)

980 2217 3997

5.22 Population size (see also: 4.18)

161 162 205 363 498 635 658 703
899 923 1010 1103 1227 1372 1450 1681
2301 2380 3269 3331 3424 3493 4111

5.23 Respiration (see also: 4.20, 10.11)

No entries

5.24 Roosting sites (see also: 5.3, 8.11)

40 92 93 251 1658 2028 2056 2380

5.25 Sense organs (see also: 5.30, 10.12, 10.13)

No entries

5.26 Temperature (see also: 1.9, 2.9, 3.11, 4.22, 4.23, 6.7, 7.11)

93	168	251	356	924	980	996	1060
1348	1356	1410	1640	1721	2080	2087	2217
2482	2648	2740	2854	3392	3442	3554	3633
3733	3778	3839	3903	3985	3997	4160	4222

5.27 Temporary habitats (see also: 1.10, 2.10, 4.24, 8.12)

No entries

5.28 Testes (see also: 5.18, 10.10)

833 1557

5.29 Predation on Odonata (see also: 3.8, 4.19, 5.5, 5.20)

28	29	45	49	135	183	220	251
263	362	470	617	675	749	756	794
854	856	865	918	926	933	1014	1038
1098	1118	1129	1130	1201	1223	1234	1261
1310	1363	1497	1524	1567	1578	1579	1705
2302	2536	2787	2936	2958	2973	2994	3257
3271	3312	3334	3445	3449	3462	3503	3644
3717	3778	3840	3966	3968	4017	4158	

5.30 Morphology (see also: 9.5, 10.1, 10.4, 10.5, 10.8 - 10.10, 10.12, 10.13)

3	47	101	115	117	197	249	286
349	399	432	443	514	609	614	626
664	743	832	833	963	968	979	1001
1045	1092	1157	1176	1182	1279	1782	2039
2060	2140	2893	2902	3328	3578	3918	3951

5.31 Pollution (see also: 3.12, 9.6)

153 1251 2880

5.32 Energetics; biomass estimates (see also: 3.15, 4.26)

2080 2684 3997 4130 4160 4222

5.33 Interspecific competition

3493

6. ADULT FEEDING BEHAVIOUR

6.0 General (see also: 5.5)

1985

6.1 Aggregation (see also: 5.3, 7.15, 8.1)

73 421 1567 2006 2721 2727 3113 3132
3466

6.2 Compound eyes (see also: 5.7, 10.13)

3968

6.3 Diel periodicity (see also: 1.3, 4.6, 5.9, 7.2)

1567

6.4 Economic importance (see also: 3.5, 6.5)

212 277 494 639 780 953 1275 2179
2258 2307 2432 2446 2504 2525 2537 2764
2799 3094 3097 3564 3821 3835 4060 4175

6.5 Feeding (see also: 6.6)

73 80 251 277 483 635 639 712
718 762 798 824 953 1275 1294 1362
1524 1534 1683 1856 1916 2197 2268 2613
2695 2754 2823 3178 3205 3334 3503 3812
3968 3997 4083

6.6 Predation (see also: 5.29, 6.4)

212 335 671 1024 1098 1253 1855 2208
2515

6.7 Temperature (see also: 5.11, 5.26, 6.3, 10.8)

1567

7. REPRODUCTIVE BEHAVIOUR

7.0 General

16 43 99 161 174 178 190 248
298 309 363 498 524 581 662 665
685 693 760 766 892 908 924 988
1103 1112 1192 1296 1345 1435 1553 1598
1700 1715 1776 1788 1842 1979 1985 2087
2554 2773 2776 2932 2977 3019 3169 3363
3365 3432 3444 3465 3643 3686 4159 4169
4225

7.1 The meeting of the sexes (see also: 1.0, 7.2, 7.3)

1549 1855 2957

7.2 Rendezvous: time (see also: 1.3, 4.6, 5.9, 6.3, 7.32)

356 784 3430 3491 3499 3747 3778 4193

7.3 Rendezvous: space (see also: 1.0)

251 579 1480

7.4 Relation of rendezvous to copulation and oviposition sites (see also: 1.0, 1.8)

4136

7.5 Territoriality: general (see also: 7.4, 7.6 - 7.10, 7.12, 7.34, 7.35)

16 54 80 251 363 409 498 632
760 785 872 892 960 1103 1188 1192
1390 1553 1597 1715 1747 1842 1856 1860
2175 2301 2741 2956 2957 2972 2977 3020
3038 3057 3106 3364 3432 3678 3686 4100

7.6 Territoriality: definition

251

7.7 Territoriality: sequence in adult life; broad plan; variation (see also: 7.5)

251

7.8 Territoriality: site attachment; localisation (see also: 5.2, 7.13)

54 161 251

7.9 Territoriality: characteristics; dimensions etc.

1975 2648 3499 3678 4193

7.10 Territoriality: residentiality; duration (see also: 5.2)

251 892 1173 2648 3499

7.11 Weather; diel periodicity (see also: 5.26, 7.2)

356 1192 3986 4091

7.12 Aggressive behaviour: defence; cruising; searching (see also: 7.5, 7.13, 7.35, 7.48)

251 579 695 892 1192 1589 1659 1855
1975 2823 3778 3855 3959 4091 4143

7.13 Dominance: success in interactions: intra-/interspecific (see also: 7.12, 7.48)

784 892 2648 3959

7.14 Spacing out; highest steady density (see also: 7.15)

1192

7.15 Aggregation: density variation and regulation (see also: 5.3, 7.5, 7.14)

2640 3038 3430

7.16 Dispersal (see also: 8.3)

No entries

7.17 Reproductive behaviour: general (see also: 7.0)

501 3730 3731 3737

7.18 (blank)

7.19 Recognition: sex and species (see also: 7.20, 7.21)

209 423 829 885 1252 3459 3787 3855

7.20 Recognition: visual (see also: 7.21)

1188 1345 1549 3855 3894 4077

7.21 Courtship (see also: 7.4, 7.12, 7.19, 7.26, 7.35)

68 1173 2650 3686 3789 3894 4091

7.22 Escape and warning behaviour by female (see also: 7.12)

251 767 1211 3430

7.23 Recognition: physical (see also: 9.0)

161 885 1211 1598 3787

7.24 Hybrids and interspecific couples (see also: 7.27)

615 650 2063 2064 3370 3598 3857 4011
4149

7.25 Reproductive isolation by habitat (see also: 7.19, 9.0)

1345 3089

7.26 Copulation: general (see also: 2.4, 7.4, 7.21, 7.30)

579 766 892 971 1188 2578 2825 3430
3486 3686 3739 3778 4091 4148

7.27 Tandem position (see also: 7.26, 7.34)

138 167 253 601 698 716 759 820
1250 1343 1816 2873 3172 3420 3612 3621
3627 3757 4137

7.28 Sperm transfer, intra-male

157 253 431 579 1188 1598 3430

7.29 Wheel position *sensu* Rowe (see also: 7.26, 7.30)

No entries

7.30 Copulation: *sensu stricto* (see also: 7.26, 7.29)

253 356 1214 1480 1590 1956 2247 2498
2648 2690 2823 2912 2959 2960 3430 3488
3491 3499 3578 3778 3789 3986

7.31 Copulation: termination (see also: 7.26, 7.30)

No entries

7.32 Copulation: diel periodicity (see also: 7.2)

3778

7.33 Post-copulatory behaviour: oviposition (see also: 1.8)

892 3430

7.34 Post-copulatory behaviour: tandem oviposition (see also: 1.8, 7.27)

924 1173 1214 1261 1480 2741 2872 3430
3597 3778 3964

7.35 Post-copulatory behaviour: guarding behaviour (see also: 1.8, 7.12)

157 579 1590 1897 2742 3172 3430 3488
3491 3753 3986 4091

7.36 Post-copulatory behaviour: solitary (see also: 1.8)

766 1192 1448

7.37 Post-copulatory behaviour: diel periodicity of male interference (see also: 1.3, 7.2)

892 3430

7.38 (blank)

7.39 (blank)

7.40 Mating expectancies and frequencies (see also: 4.21)

99 3089

7.41 Frequency of sexes (see also: 4.21)

99 1192

7.42 Frequency of sexes at water (see also: 4.21, 7.40)

3562

7.43 Frequency of mating (see also: 7.40)

3872

7.44 (blank)

7.45 Adaptive consequences of behaviour (see also: 9.0)

1659 3753 3800 4136 4223

7.46 Summary: ways ecological requirements are met (see also: 7.45, 9.0)

No entries

7.47 (blank)

7.48 Competition: interspecific competitive exclusion (see also: 5.33, 7.13)

98 750 3430

8. DISPERSAL

8.0 General (see also: 5.10)

603 3601

8.1 Aggregation (see also: 5.24, 6.1, 7.15, 8.11)

251 2662 3678 3757

8.2 Colonisation (see also: 1.2, 8.9, 9.8)

503 1389 4048

8.3 Dispersal (see also: 5.10, 8.0, 7.16)

8 141 200 354 768 769 883 1304
2195 2242 2259 2610 2989 3424 3562 3830
4091 4159

8.4 Drought (see also: 1.5, 1.10, 2.3, 2.10, 4.8, 4.24, 5.26, 5.27, 8.12)

No entries

8.5 Emergence (see also: 4.9, 8.1, 8.8)

2575

8.6 Flight (see also: 5.11, 8.10, 10.8)

No entries

8.7 Hibernation (see also: 1.10, 4.22, 4.24, 5.15, 5.27, 8.12)

No entries

8.8 Maiden flight (see also: 4.9, 8.5, 8.6, 8.10)

251 1402 1694 3822

8.9 Migration (see also: 8.3, 8.10, 9.8)

176 373 406 421 495 507 517 552
553 589 639 700 730 731 741 795

810	818	852	868	894	929	1034	1460
1521	1536	1537	1593	1656	1694	1791	1814
1816	1819	2259	2356	2394	2452	2501	2517
2530	2635	2709	2727	2758	2873	2922	2974
3047	3115	3127	3136	3180	3210	3242	3277
3324	3480	3500	3527	3529	3614	3813	3820
3868	3974	4069	4212				

8.10 Orientation (see also: 8.6, 8.8, 8.9)

3691

8.11 Roosting sites (see also: 5.24, 8.1)

No entries

8.12 Temporary habitats (see also: 1.10, 2.10, 4.24, 5.27, 8.4)

503

9. EVOLUTIONARY PERSPECTIVE

9.0 General

247 516 603 632 633 892 912 1230
2932 3647 3686 3817 4223

9.1 Fossil history (see also: 3.13, 5.30, 9.2, 9.3)

7 107 763 836 870 912 1569 1572
1785 1829 2122 2583 2809 2918 3342 3985
3994 4057

9.2 Fossils (see also: 3.13, 5.30, 9.1, 9.3)

107 370 448 912 1050 1081 1572 1645
1654 2206 2333 2403 2430 2518 2519 2521
2544 2568 2570 2582 2583 2597 2734 2768
2809 2970 3063 3093 3162 3181 3248 3251
3295 3323 3342 3345 3354 3355 3453 3645
3716 3816 3980 4022 4208

9.3 Phylogeny (see also: 9.0, 9.1, 9.2)

7 101 115 291 309 395 433 455
456 457 505 580 613 763 876 1050
1172 1173 1279 1323 1526 2262 2582 3004
3024 3084 3222 3236 3243 3274 3276 3279
3298 3343 3431 3539 3543 3551 3765 3811
3931 3951 4057

9.4 Local distribution; faunistics; biotopes (see also: 0.2, 3.0, 3.14, 9.8)

12 13 17 23 32 41 44 53
57 60 65 67 71 74 76 79
82 95 96 97 104 105 111 114
121 122 123 124 126 127 131 143
144 150 154 168 175 177 180 182
185 204 210 214 217 218 221 230
231 232 244 246 248 250 252 254
255 259 264 267 268 271 272 275
276 278 284 288 290 296 302 306
308 310 311 312 314 315 316 320
321 322 328 329 330 333 334 336
337 339 351 352 355 360 366 368
372 384 392 393 394 396 400 407
408 410 411 414 415 418 424 427
428 438 442 445 454 460 462 464
477 488 493 497 499 504 506 508
509 510 522 534 535 537 546 547

551	556	559	560	561	563	564	568
570	571	577	584	588	590	591	592
593	596	602	604	610	618	619	620
625	627	628	638	647	657	663	666
672	683	686	687	691	697	706	713
715	717	722	723	724	729	731	732
735	742	752	754	755	757	764	766
770	771	772	773	779	788	790	796
801	809	810	816	817	826	830	834
841	842	849	857	866	886	887	894
896	897	901	910	911	913	914	919
920	921	923	925	927	929	932	935
936	945	946	952	970	973	974	982
984	985	991	992	993	997	998	999
1000	1007	1010	1011	1013	1018	1019	1020
1021	1027	1032	1035	1037	1042	1044	1049
1055	1057	1058	1059	1060	1061	1073	1074
1078	1082	1083	1087	1088	1093	1094	1095
1097	1099	1104	1106	1111	1115	1117	1119
1120	1124	1125	1127	1128	1131	1132	1135
1136	1137	1139	1140	1141	1144	1148	1156
1158	1159	1168	1178	1179	1184	1185	1190
1193	1202	1203	1208	1210	1215	1220	1221
1224	1225	1226	1228	1229	1231	1233	1236
1238	1239	1240	1244	1248	1254	1256	1257
1258	1263	1265	1267	1269	1270	1271	1273
1277	1284	1289	1290	1292	1295	1305	1320
1326	1327	1332	1333	1334	1336	1337	1339
1346	1354	1359	1364	1367	1375	1376	1378
1379	1383	1385	1389	1391	1392	1393	1394
1400	1403	1406	1408	1409	1411	1412	1413
1416	1419	1427	1429	1433	1440	1442	1443
1444	1445	1448	1449	1452	1453	1455	1457
1458	1463	1467	1469	1479	1487	1495	1504
1509	1512	1514	1516	1518	1519	1520	1529
1532	1533	1542	1565	1566	1567	1570	1574
1575	1594	1595	1599	1608	1624	1628	1629
1632	1634	1635	1639	1643	1644	1647	1650
1651	1662	1663	1667	1669	1670	1675	1679
1682	1685	1688	1689	1691	1695	1697	1698
1699	1702	1703	1704	1711	1713	1714	1718
1719	1723	1725	1727	1728	1734	1737	1741
1748	1749	1750	1751	1757	1760	1774	1780
1786	1789	1790	1800	1801	1804	1806	1807
1808	1812	1819	1820	1823	1826	1828	1831
1832	1834	1835	1851	1855	1866	1868	1870
1871	1876	1878	1883	1885	1886	1887	1890
1895	1898	1900	1909	1911	1918	1920	1921
1923	1925	1927	1933	1940	1947	1948	1950
1954	1960	1964	1967	1969	1972	1973	1975
1984	1992	1997	2005	2013	2014	2015	2016
2018	2021	2022	2025	2028	2033	2034	2041
2045	2056	2058	2066	2068	2069	2070	2071
2082	2083	2084	2093	2095	2098	2099	2102
2108	2109	2110	2111	2112	2114	2116	2119
2125	2126	2131	2135	2148	2151	2152	2156
2157	2162	2165	2167	2168	2174	2184	2185

2186	2187	2188	2189	2190	2196	2198	2200
2204	2205	2207	2214	2224	2225	2226	2227
2240	2251	2255	2273	2283	2299	2314	2317
2321	2326	2328	2329	2330	2332	2336	2339
2346	2349	2352	2354	2358	2359	2363	2364
2368	2381	2388	2389	2393	2396	2405	2409
2410	2411	2412	2413	2414	2415	2416	2417
2418	2422	2423	2426	2427	2428	2439	2444
2447	2448	2450	2457	2460	2467	2476	2480
2486	2488	2489	2493	2495	2496	2502	2507
2511	2512	2513	2522	2524	2535	2541	2542
2546	2559	2562	2569	2584	2585	2587	2590
2599	2605	2612	2614	2626	2628	2630	2632
2634	2637	2638	2643	2646	2653	2657	2660
2666	2670	2672	2675	2677	2679	2685	2689
2698	2701	2704	2705	2707	2714	2715	2716
2717	2723	2729	2731	2732	2736	2737	2738
2743	2749	2750	2753	2757	2759	2765	2769
2772	2774	2775	2784	2786	2790	2793	2796
2798	2803	2804	2806	2807	2818	2827	2828
2831	2835	2836	2838	2840	2847	2853	2855
2856	2863	2877	2881	2882	2884	2885	2889
2894	2899	2905	2913	2916	2923	2928	2933
2939	2940	2944	2949	2965	2966	2967	2978
2979	2981	2985	2986	2991	2992	3001	3005
3017	3030	3031	3032	3033	3036	3041	3042
3043	3049	3055	3056	3058	3059	3062	3065
3071	3073	3074	3075	3078	3080	3081	3082
3087	3090	3091	3092	3096	3099	3100	3103
3109	3116	3117	3134	3137	3138	3139	3140
3141	3143	3144	3149	3150	3151	3152	3157
3158	3164	3166	3167	3168	3173	3175	3177
3179	3186	3189	3193	3194	3197	3204	3213
3216	3219	3223	3229	3234	3235	3238	3244
3245	3246	3252	3256	3263	3272	3273	3275
3293	3294	3299	3301	3305	3307	3309	3318
3319	3320	3325	3327	3331	3340	3341	3348
3359	3360	3361	3365	3366	3367	3368	3369
3371	3372	3373	3374	3376	3377	3378	3379
3380	3383	3393	3401	3407	3408	3411	3416
3417	3418	3425	3429	3435	3438	3443	3446
3451	3452	3460	3467	3474	3477	3478	3481
3487	3489	3496	3513	3518	3519	3521	3525
3528	3532	3533	3534	3540	3546	3555	3560
3561	3569	3570	3573	3574	3575	3580	3581
3583	3585	3586	3587	3590	3592	3599	3600
3602	3606	3609	3610	3611	3613	3615	3616
3617	3620	3625	3626	3628	3629	3630	3631
3632	3634	3636	3638	3639	3640	3641	3642
3653	3658	3664	3666	3670	3673	3674	3684
3685	3688	3689	3690	3695	3707	3711	3713
3714	3720	3721	3740	3745	3754	3755	3759
3773	3774	3776	3784	3785	3786	3788	3791
3792	3794	3795	3797	3798	3799	3805	3813
3821	3823	3824	3825	3828	3832	3843	3847
3848	3850	3864	3871	3875	3876	3884	3887
3888	3889	3899	3908	3916	3919	3930	3942

3945 3948 3954 3955 3957 3961 3967 3970
3976 3991 3992 3996 3998 4003 4007 4009
4010 4014 4019 4020 4024 4028 4029 4030
4039 4042 4043 4045 4050 4051 4052 4059
4065 4066 4067 4070 4074 4075 4078 4079
4084 4085 4087 4092 4096 4104 4107 4110
4113 4118 4119 4120 4127 4129 4135 4140
4144 4145 4146 4150 4153 4155 4156 4161
4162 4163 4169 4171 4173 4177 4179 4181
4183 4188 4190 4192 4197 4199 4216 4220

9.5 Taxonomy; systematics (see also: 3.13, 5.30, 9.3)

4 9 10 15 18 34 39 61
62 63 102 103 104 105 113 119
139 188 201 217 223 225 280 294
305 313 324 377 378 388 399 401
402 403 404 405 422 444 522 527
529 543 631 633 634 645 652 669
674 676 677 678 679 690 721 761
788 800 805 806 807 812 838 862
863 864 871 888 895 934 940 941
942 943 961 966 1043 1086 1096 1161
1162 1163 1164 1170 1175 1191 1196 1230
1242 1255 1262 1281 1288 1297 1298 1306
1347 1349 1351 1377 1484 1485 1488 1496
1504 1511 1512 1519 1531 1614 1643 1644
1666 1670 1707 1730 1731 1746 1776 1781
1792 1801 1807 1886 1911 1937 1965 1966
1975 1976 1977 1995 1996 1998 2031 2053
2073 2074 2097 2101 2120 2127 2128 2160
2173 2180 2204 2215 2218 2239 2262 2282
2308 2313 2323 2349 2350 2355 2371 2372
2373 2374 2377 2378 2434 2436 2443 2462
2556 2596 2606 2636 2663 2664 2693 2714
2716 2726 2744 2756 2760 2788 2808 2817
2844 2924 2931 2945 2947 2954 2955 2999
3000 3040 3101 3118 3125 3145 3153 3177
3200 3208 3211 3224 3285 3288 3289 3308
3389 3406 3414 3429 3473 3485 3501 3507
3509 3523 3546 3547 3548 3549 3576 3647
3676 3757 3762 3763 3774 3775 3846 3862
3863 3883 3900 3911 3921 3933 3939 3950
3953 3956 3957 3958 3982 4023 4055 4058
4062 4064 4092 4095 4107 4114

9.6 Conservation (see also: 3.12)

22 111 196 233 389 390 392 437
519 555 593 628 666 687 779 845
857 860 894 906 959 972 1065 1066
1180 1228 1273 1312 1340 1361 1380 1412
1428 1449 1464 1468 1540 1553 1602 1641
1646 1649 1672 1696 1729 1741 1790 1804
1805 1835 1874 1918 1927 1983 1999 2014

2114 2116 2130 2131 2198 2203 2224 2240
2276 2283 2299 2314 2317 2318 2341 2342
2352 2389 2405 2472 2508 2512 2522 2535
2537 2559 2595 2602 2603 2628 2637 2639
2655 2661 2694 2715 2732 2746 2753 2826
2838 2899 2907 2925 2926 2927 2942 2943
2965 3001 3006 3012 3013 3028 3059 3074
3083 3102 3105 3108 3112 3115 3119 3120
3129 3131 3138 3147 3165 3174 3198 3207
3212 3237 3258 3261 3267 3296 3306 3307
3335 3336 3352 3373 3383 3401 3403 3408
3411 3414 3434 3454 3456 3468 3481 3490
3496 3540 3556 3559 3568 3572 3579 3588
3593 3605 3613 3622 3637 3662 3682 3683
3688 3736 3750 3756 3760 3781 3807 3833
3845 3851 3854 3865 3867 3889 3898 3906
3922 3923 3936 3942 3945 3946 3948 3949
3987 3995 3996 4002 4018 4021 4026 4035
4045 4054 4076 4098 4101 4110 4122 4150
4162 4166 4173 4179 4196 4201 4202 4224

9.7 Genetics (see also: 9.9, 10.10)

50 51 75 192 209 256 257 318
423 481 526 613 650 661 704 705
1003 1252 1313 1322 1374 1738 1739 2465
2566 2641 2682 2683 2837 2934 3007 3155
3249 3250 3386 3387 3426 3669 3890 3901
3924 4167

9.8 Zoogeography including climate (see also: 9.0, 9.4)

14 15 63 64 141 142 143 144
184 226 293 383 399 416 515 528
603 654 656 657 660 708 774 810
837 839 870 871 887 1031 1040 1048
1062 1067 1291 1306 1349 1350 1376 1393
1518 1520 1533 1586 1596 1644 1673 1741
1807 1841 1879 1886 1887 1937 1954 1965
1966 1981 2014 2107 2110 2112 2126 2212
2218 2285 2286 2296 2303 2338 2342 2347
2356 2378 2379 2384 2394 2422 2424 2428
2440 2449 2469 2522 2552 2581 2590 2629
2658 2757 2834 2857 2904 2926 3002 3003
3004 3024 3073 3092 3109 3200 3203 3214
3243 3247 3255 3259 3260 3280 3292 3309
3311 3325 3335 3549 3576 3676 3728 3745
3849 3866 3897 4059 4073 4202

9.9 Variation (see also: 3.13, 4.14, 4.22, 4.23, 5.30, 9.7)

18 46 47 90 105 147 170 282
295 395 399 425 522 545 634 649
739 800 1134 1217 1302 1309 1317 1318

1324	1455	1456	1458	1483	1552	1622	1715
1732	1746	2041	2135	2262	2321	2408	2561
2750	2774	2916	2917	2932	2946	2954	2978
3000	3034	3051	3062	3177	3215	3239	3297
3479	3501	3549	3550	3647	3658	3849	3897
3938	4138						

10. PHYSIOLOGY

10.0 General

540 614 1066 2665

10.1 Circulatory system (see also: 3.13, 5.30)

269 289 733 802 828 977 979 1264
1387 1476 1510 1811 2176 2598 2896 2906
3114 3142 3810 4210

10.2 Digestion; nutrition (see also: 3.6, 4.12, 6.5, 10.6)

249 381 492 736 965 1515 1606 1664
1665 1971 2149 2254 2312 2392 2692 2893
3104 3171

10.3 Egg developement (see also: 2.1)

371 877 1205

10.4 Excretion; osmoregulation (see also: 3.14)

66 81 382 1243 1430 1481 1601 1813
1892 1957 1993 2077 2096 2158 2192 2376
2708 2712 2938 3110 3346 3594 3672 3810
4027 4165 4210

10.5 Integument (see also: 3.2, 5.6)

245 299 359 580 612 900 1172 1348
1692 2543 2710 3170 4209

10.6 Larval growth (see also: 4.0, 4.12)

297 385 386 694 1218

10.7 Metabolism (see also: 4.23, 5.26)

11 81 93 211 1585 2711 3552 3869

10.8 Muscular system; locomotion (see also: 3.4, 5.11)

83 117 279 291 338 342 455 456
457 480 595 626 630 664 673 710
799 858 873 930 980 1008 1076 1182

1283 1285 1321 1381 1438 1447 1555 2002
2011 2012 2322 2620 2724 3196 3384 3395
3472 3827 4217

10.9 Nervous and endocrine systems (see also: 3.1, 4.3, 4.12, 4.15, 4.22, 5.5)

19 87 88 108 151 166 274 279
286 297 299 325 326 345 349 350
385 386 434 439 440 451 453 463
521 641 646 673 711 736 783 803
878 904 963 988 990 1001 1080 1205
1218 1260 1282 1417 1420 1551 1587 1588
1611 1619 1665 1674 1914 2044 2406 2479
2483 2619 2691 2820 2832 2900 2937 2948
3052 3122 3135 3542 3624 3771 3881 3891
3932 4218

10.10 Reproductive systems (see also: 5.18, 5.19, 5.28)

151 186 436 475 521 877 1293 1313
1386 1462 1623 1722 1987 2044 2271 2674
2802 2888 2902 3344 3353 3385 3531 3578
3709 3913 3918 4080 4167 4195

10.11 Respiration (see also: 3.4, 3.9, 4.20, 5.23)

83 197 245 265 266 279 576 902
957 1892 2158 2182 2183 2192 2402 2499
2708 3771 4187

10.12 Sense organs:- mechanical/chemical stimuli (see also: 3.13, 5.25, 5.30)

447 466 541 626 743 873 915 1045
1216 1245 2086 2421 2451 2454 2455 2833
3077 3240

10.13 Sense organs:- visual stimuli (see also: 3.6, 3.13, 4.4, 5.7, 5.30, 6.2, 6.5, 7.20)

38 52 89 136 224 273 303 323
335 353 449 450 451 467 621 636
640 648 671 681 793 797 803 878
916 955 956 963 975 976 1001 1051
1077 1174 1247 1325 1550 1631 1633 1720
1877 1881 1891 1893 1929 1942 1943 2010
2023 2024 2091 2092 2133 2222 2229 2298
2309 2310 2335 2375 2453 2492 2527 2532
2586 2594 2623 2645 2654 2656 2678 2735
2800 2810 2813 2819 2845 2846 2909 3039
3060 3154 3159 3163 3228 3231 3440 3545

3656 3657 3677 3697 3744 3777 3896 3968
3999 4168 4182 4203

10.14 Water and temperature relations (see also: 1.5, 1.9, 2.3, 2.9, 3.11, 4.8, 4.23, 5.26, 6.7, 8.4, 10.4)

269 1107 2158 2192 2579

APPENDIX I

Classified list of topics

0. GENERAL AND MISCELLANEOUS

0.0 General
0.1 Bibliographies
0.2 Catalogues; checklists
0.3 Common names
0.4 Folklore
0.5 General works on the biology of Odonata: popular
0.6 General works on the biology of Odonata: scientific
0.7 History of odonatology
0.8 Identification manuals; guides; handbooks
0.9 Literature surveys; services; distribution maps; museums
0.10 Meetings; colloquia; societies; journals
0.11 Miscellaneous
0.12 Nomenclature
0.13 Obituaries
0.14 Ornaments; art; food; exhibitions
0.15 Personalia; lists of odonatologists
0.16 Reviews
0.17 Techniques; methods:- chromosomes
0.18 Techniques; methods:- colour preservation
0.19 Techniques; methods:- curation
0.20 Techniques; methods:- estimation of numbers
0.21 Techniques; methods:- field methods; collecting
0.22 Techniques; methods:- laboratory methods
0.23 Techniques; methods:- marking
0.24 Techniques; methods:- photography
0.25 Techniques; methods:- rearing; colonisation
0.26 Terminology

1. HABITAT SELECTION AND OVIPOSITION

1.0 General
1.1 Behaviour
1.2 Colonisation
1.3 Diel periodicity
1.4 Drinking
1.5 Drought
1.6 Fertilisation
1.7 Ovaries
1.8 Oviposition
1.9 Temperature
1.10 Temporary habitats
1.11 Energetics

2. THE EGG STAGE

2.0 General
2.1 Development
2.2 Diapause
2.3 Drought
2.4 Fertilisation
2.5 Hatching
2.6 Hibernation
2.7 Parasites
2.8 Predation
2.9 Temperature
2.10 Temporary habitats
2.11 Photoperiod
2.12 Wetting
2.13 Energetics
2.14 Morphology

3. THE LARVAL STAGE: GENERAL

3.0 General
3.1 Behaviour
3.2 Colour
3.3 Compound eyes
3.4 Diaphragm
3.5 Economic importance
3.6 Feeding
3.7 Parasites
3.8 Predation on Odonata
3.9 Respiration
3.10 Sense organs
3.11 Temperature
3.12 Pollution
3.13 Morphology
3.14 Habitat distribution
3.15 Energetics; biomass estimates
3.16 Interspecific competition

4. GROWTH, METAMORPHOSIS AND EMERGENCE

4.0 General
4.1 Aggregation
4.2 Altitude
4.3 Behaviour
4.4 Compound eyes
4.5 Diapause
4.6 Diel periodicity
4.7 Digestion
4.8 Drought
4.9 Emergence
4.10 Endocrine organs
4.11 Flying season
4.12 Growth rate
4.13 Hibernation
4.14 Latitude

4.15 Metamorphosis; moulting
4.16 Parasites
4.17 Photoperiod
4.18 Population size
4.19 Predation on Odonata
4.20 Respiration
4.21 Sex ratio
4.22 Seasonal development
4.23 Temperature
4.24 Temporary habitats
4.25 Survivorship
4.26 Energetics

5. ADULT LIFE: GENERAL

5.0 General
5.1 Aestivation
5.2 Age
5.3 Aggregation
5.4 Altitude
5.5 Behaviour
5.6 Colour
5.7 Compound eyes
5.8 Diapause
5.9 Diel periodicity
5.10 Dispersal
5.11 Flight physiology
5.12 Fliers
5.13 Flying season
5.14 Folklore
5.15 Hibernation
5.16 Latitude
5.17 Longevity
5.18 Maturation period
5.19 Ovaries
5.20 Parasites
5.21 Perchers
5.22 Population size
5.23 Respiration
5.24 Roosting sites
5.25 Sense organs
5.26 Temperature
5.27 Temporary habitats
5.28 Testes
5.29 Predation on Odonata
5.30 Morphology
5.31 Pollution
5.32 Energetics; biomass estimates
5.33 Interspecific competition

6. ADULT FEEDING BEHAVIOUR

6.0 General
6.1 Aggregation
6.2 Compound eyes

6.3 Diel periodicity
6.4 Economic importance
6.5 Feeding
6.6 Predation
6.7 Temperature

7. REPRODUCTIVE BEHAVIOUR

7.0 General
7.1 The meeting of the sexes
7.2 Rendezvous: time
7.3 Rendezvous: space
7.4 Relation of rendezvous to copulation and oviposition sites
7.5 Territoriality: general
7.6 Territoriality: definition
7.7 Territoriality: sequence in adult life; broad plan; variation
7.8 Territoriality: site attachment; localisation
7.9 Territoriality: characteristics; dimensions etc.
7.10 Territoriality: residentiality; duration
7.11 Weather; diel periodicity
7.12 Aggressive behaviour: defence; cruising; searching
7.13 Dominance: success in interactions: intra-/interspecific
7.14 Spacing out; highest steady density
7.15 Aggregation: density variation and regulation
7.16 Dispersal
7.17 Reproductive behaviour: general
7.18 (blank)
7.19 Recognition: sex and species
7.20 Recognition: visual
7.21 Courtship
7.22 Escape and warning behaviour by female
7.23 Recognition: physical
7.24 Hybrids and interspecific couples
7.25 Reproductive isolation by habitat
7.26 Copulation: general
7.27 Tandem position
7.28 Sperm transfer, intra-male
7.29 Wheel position sensu Rowe
7.30 Copulation: sensu stricto
7.31 Copulation: termination
7.32 Copulation: diel periodicity
7.33 Post-copulatory behaviour: oviposition
7.34 Post-copulatory behaviour: tandem oviposition
7.35 Post-copulatory behaviour: guarding behaviour
7.36 Post-copulatory behaviour: solitary
7.37 Post-copulatory behaviour: diel periodicity of male interference
7.38 (blank)
7.39 (blank)
7.40 Mating expectancies and frequencies
7.41 Frequency of sexes
7.42 Frequency of sexes at water
7.43 Frequency of mating

7.44 (blank)
7.45 Adaptive consequences of behaviour
7.46 Summary: ways ecological requirements are met
7.47 (blank)
7.48 Competition: interspecific competitive exclusion

8. DISPERSAL

8.0 General
8.1 Aggregation
8.2 Colonisation
8.3 Dispersal
8.4 Drought
8.5 Emergence
8.6 Flight
8.7 Hibernation
8.8 Maiden flight
8.9 Migration
8.10 Orientation
8.11 Roosting sites
8.12 Temporary habitats

9. EVOLUTIONARY PERSPECTIVE

9.0 General
9.1 Fossil history
9.2 Fossils
9.3 Phylogeny
9.4 Local distribution; faunistics; biotopes
9.5 Taxonomy; systematics
9.6 Conservation
9.7 Genetics
9.8 Zoogeography including climate
9.9 Variation

10. PHYSIOLOGY

10.0 General
10.1 Circulatory system
10.2 Digestion; nutrition
10.3 Egg developement
10.4 Excretion; osmoregulation
10.5 Integument
10.6 Larval growth
10.7 Metabolism
10.8 Muscular system; locomotion
10.9 Nervous and endocrine systems
10.10 Reproductive systems
10.11 Respiration
10.12 Sense organs:- mechanical/chemical stimuli
10.13 Sense organs:- visual stimuli
10.14 Water and temperature relations

APPENDIX II

Placement of Odonatological Abstracts in *Odonatologica* Volumes 1-12 (1972-1983)

Abstract numbers	Vol	Part	Pages	Abstract numbers	Vol	Part	Pages
1- 64	1	1	53- 62	1826-1938	7	1	91-114
65- 136		2	119-130	1939-2024		2	167-186
137- 199		3	167-179	2025-2136		3	287-307
200- 288		4	263-278	2137-2243		4	391-414
289- 361'	2	1	49- 64	2244-2325	8	1	71- 89
362- 431		2	125-137	2326-2417		2	135-154
432- 487		3	175-189	2418-2500		3	227-244
488- 537		4	335-347	2501-2583		4	333-350
538- 616	3	1	79- 92	2584-2665	9	1	107-124
617- 660		2	143-151	2666-2753		2	197-215
661- 718		3	191-201	2754-2858		3	259-278
719- 821		4	273-292	2859-2961		4	329-352
822- 906	4	1	35- 53	2962-3064	10	1	65- 83
907-1010		2	101-124	3065-3153		2	159-177
1011-1084		3	191-206	3154-3237		3	237-257
1085-1200		4	277-297	3238-3338		4	333-354
1201-1288	5	1	79- 95	3339-3473	11	1	63- 87
1289-1348		2	181-192	3474-3581		2	167-187
1349-1424		3	291-307	3582-3690		3	251-270
1425-1486		4	391-404	3691-3803		4	347-368
1487-1571	6	1	35- 54	3804-3911	12	1	93-113
1572-1674		2	119-141	3812-4030		2	179-200
1675-1749		3	211-226	4031-4123		3	297-313
1750-1825		4	297-312	4024-4225		4	401-421

INDEX TO SUBJECTS

Numbers given are topic designations which can be located in the text by consulting the Contents and by using the running heads on pages 1-39. The prefix number (0-10) in each designation (as listed in the Contents) shows the context, developmental stage or behavioural category to which the designation refers; thus "Altitude" contains two numbers, referring to the larva (4.2) and adult (5.4) respectively. This index does not necessarily provide cross-references, which appear after topic designations in the text.