

Cambridge University Press

978-0-521-10470-8 - An Ecological Approach to Acanthocephalan Physiology

D. W. T. Crompton

Index

[More information](#)

Index

- absorption of nutrients by adults, 32–7,
48
 during development, 84
absorptive surface, 28–32, 36
acanthella, 7, 79–83
Acanthocephalus anguillae, 1, 2
A. clavula, 52
A. jacksoni, 13, 27, 56, 62, 63
A. lucii, 13
A. nanus, 9
A. ranae, 6, 14, 15, 25, 28, 29, 30, 34,
36, 44, 95, 105
A. tenuirostris, 2
acanthor, 7, 61, 63, 68–74, 87–90
Acanthosentis dattai, 58
activation of cystacanths, 99–100
alcoholic fermentation, 40
amino acids, 29, 34, 48
amphibian hosts, 9, 14, 44
amphipod hosts, 9, 65, 76, 87, 90, 93
Apororhynchus amphistomi, 14, 28
Arhythmorhynchus capellae, 14
arthropod haemocoel as an environ-
ment for development, 75–9
attachment, 1, 3, 12
attachment zones, 12–15

bile acids (salts), 17, 20, 22, 48, 65,
99–100
body wall, development, 81–3
 morphology, 4–6, 29–32, 94–7
Bolbosoma balaenae, 14
bursa, 4–5, 54, 58

canals, 6, 30–1
capsule, 75, 87–90
carbohydrate deprivation, 16, 43
carbohydrate metabolism, 40–50
carbon dioxide and glucose, 46–7
carbon dioxide fixation, 47
carotenoids, 85
cement glands, 4–5, 56
Centrorhynchus spp., 74
cestodes, 18, 22–3, 24–5, 46–7
classification, 2

competition between *M. dubius* and
 H. diminuta, 22–3, 50
copulation, 52, 53, 58
Corynosoma bipapillum, 14
C. semerme, 103
C. strumosum, 14
C. turbidum, 2
crustacean haemolymph, 76–8
cuticle, 4–6
cystacanth, 7, 79–81, 83–4, 94–101

development, 75, 79–85
developmental stages defined, 79
diagnostic features, 2
duration of infectivity of cystacanths,
97
 of eggs, 63–4

Echinorhynchus coregoni, 40, 90
E. gadi, 2, 13, 24, 40, 62–3
E. lageniformis, 13
E. truttae, 9, 13, 27, 51, 57, 69, 79, 82,
87, 93, 96, 99
effects of acanthocephalans on inter-
mediate hosts, 91–3
effects of host starvation on acantho-
cephalans, 16, 25, 43
eggs, 4–5, 61–74
 hatching *in vitro*, 72–4
 hatching *in vivo*, 69–71
 hatching stimulus, 68, 72
 production, 59
 resistant properties, 63–5
 shell, 61–3, 71
 sorting, 7, 54–5
Eocollis arcanus, 101
environments, 11
 of acanthocephalans in fish, 23–5
 of adult *M. dubius* and *P. minutus*,
16–23
 of developing *M. dubius* and *P.*
 minutus, 76–9
 of development, 75
 of egg hatching, 60–70, 72
 in transport hosts, 102–3

Cambridge University Press

978-0-521-10470-8 - An Ecological Approach to Acanthocephalan Physiology

D. W. T. Crompton

Index

[More information](#)

- environmental amino acids, 19–20, 78
 carbon dioxide, 17, 19, 72, 78
 nutrients, 17, 19, 28, 44, 78
 osmotic pressure, 16–19, 66, 78, 91
 oxygen tension, 17, 19, 24, 45–6,
 76, 78, 99, 102–3
 pH, 17, 66, 67, 72, 78
 temperature, 17
 water, 17, 78
 epicuticle, 4, 6
 ethanol, 22, 49–50
 excretion, 6, 36
 excretory products, 41–3, 49, 84
 expulsion of worms from final host, 52
- feeding, 28–37, 84
 felt layer, 4–6, 95
 female efferent duct system, 4–5, 53–5
Filicollis anatis, 9
 final host, 7
- Gammarus pulex*, 9, 51, 64, 67, 79, 87–9,
 91–3, 103
Gammarus spp., 9
 ganglion, 4–5
 gastropod hosts, 7, 10, 75
 glucose, 29, 32–3, 36, 40–2, 44–7, 78,
 84–5
 glycogen, 6, 38, 40, 43–4, 47, 85, 97–8
 glycolysis, 41–3
Gordiorhynchus itatsinis, 101
Gorgorhynchus clavatum, 58
 growth of adults, 38–40, 43, 53
 during development, 83–4
- haemocoel, 75–8, 86
 haemocytes, 77–8, 86–91
 haemolymph, 76–8, 91
Hamanniella tortuosa, 74
 host-parasite reactions during develop-
 ment, 86–93
 hydrostatic skeleton, 6
Hymenolepis diminuta, 15, 18, 22–3,
 46–7, 50
- in vitro* cultivation, 40, 44
 infection of final host, 98–100
 of intermediate host, 65–74
 of transport host, 100–1
 inflammatory reactions of transport
 hosts, 102–3
 intermediate host, 7, 75, 86–93
- lacunar channel, 4–5, 82
 lemnisci, 3–4, 34
- Leptorhynchoides thecatus*, 9, 13, 40, 57,
 64, 70, 82, 87, 90, 91, 92, 101
 life cycle, 7–11
 ligament, 4–5
 lipid, 6, 34, 85, 97
 longevity, 51–2
- Macracanthorhynchus hirudinaceus*, 2, 3,
 8, 14, 29, 34, 35, 36, 38, 40, 41,
 52, 57, 58, 59, 62, 63, 64, 65, 69,
 73, 82, 83, 85, 90, 93, 96, 98
M. ingens, 8, 69, 73, 82, 87, 96
 male reproductive system, 4–5, 54
 mating, 25, 56–8
 maturation, 59
Mediorhynchus grandis, 8, 14, 69, 73, 82,
 90, 96
 metabolism of adults, 6, 40–50
 during development, 83–5, 92–3
 metasoma, 3–5, 36–7
Micracanthocephalus hemirhamphus, 13
 micro-organisms, 18, 19, 22, 32, 49, 78–9
 mitochondria, 6, 45–6, 82
Moniliformis clarki, 8, 25, 64, 69, 82, 87
M. dubius, 6, 8, 14, 15, 16, 18, 21,
 22, 23, 25, 26, 28, 29, 30, 31, 34,
 35, 36, 38, 39, 40, 41, 42, 43, 44,
 45, 47, 48, 49, 50, 53, 57, 62, 63,
 64, 65, 66, 68, 69, 71, 72, 73, 74,
 75, 77, 78, 82, 83, 87, 89, 95, 96,
 98, 99, 100
 monorchids, 56
 movement within the environment,
 25–7
 muscles, 3–4, 40, 79
- Neoechinorhynchus carpiodi*, 13
N. cristatus, 13
N. cylindricus, 10, 40, 74, 102, 103
N. emydis, 7, 10, 14, 25, 40, 43, 58,
 62, 70, 74, 82
N. proluxoides, 13
N. pseudemydis, 58
N. rutili, 2, 10, 24, 62, 64, 70, 74, 82
N. topseyi, 25
Neoechinorhynchus spp., 29, 42, 45, 89
Nephridiacanthus longissimus, 3
- Octospinifer macilentis*, 10, 13, 57, 64,
 70, 82, 94, 95, 96, 99
O. torosus, 13
Octospiniferoides chandleri, 13
Onicicola canis, 14
 osmoregulation, 18–9, 26
 ovarian ball, 4, 53

Cambridge University Press

978-0-521-10470-8 - An Ecological Approach to Acanthocephalan Physiology

D. W. T. Crompton

Index

[More information](#)

- oxygen and glucose, 45–6, 84
- oxygen utilization, 41, 45
- pairing, 56
- Pallisentis basiri*, 101, 102
 - P. nagpurensis*, 13
- paramucosal lumen, 15
- parasitic castration, 91
- parasitism, 86
- patent period, 56–9
- Paulisentis fractus*, 10, 13, 28, 29, 64, 70, 82, 88, 90
- Periplaneta americana*, 8, 65, 66, 71, 75, 77, 89
- peristalsis, 3, 16, 50, 58
- Polymorphus marilis*, 9
 - P. minutus*, 5, 6, 9, 12, 14, 15, 16, 18, 20, 21, 22, 23, 26, 28, 29, 30, 31, 32, 33, 36, 38, 39, 40, 41, 42, 43, 44, 46, 48, 49, 51, 52, 53, 54, 55, 57, 58, 59, 63, 64, 65, 67, 68, 70, 74, 75, 77, 78, 79, 80, 82, 83, 84, 85, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 105
- P. paradoxus*, 14, 101, 103
- Pomphorhynchus bulbocolli*, 9, 13, 40, 44, 57, 64, 90, 103
 - P. laevis*, 1, 6, 9, 29, 103
- pores, 6, 29–30, 82–3
- praesoma, 3–5, 28, 34, 36
- prepatent period, 56–9
- proboscis, 1–4, 58
- Profilicollis botulus*, 9, 14, 63
- Prosthenorchis elegans*, 8
 - P. spirula*, 8
- Prosthorhynchus formosus*, 14, 64, 70, 74, 82, 87, 104
- radial layer, 4–6, 82, 97
- reproduction, 51–60
- reproductive systems, 4–5, 53–5
- Rhadinorhynchus horridum*, 2
- ribosomes, 6
- sexual dimorphism, 36, 53–6
- sex ratio, 51–2
- size, 3, 38–9
- Sphaerechinorhynchus rotundocapitatus*, 14, 58
- striped layer, 4–6, 97
- surface phosphatases, 30–2
- Telosentis molini*, 54
 - T. tenuicornis*, 13
- temperature and development, 79, 81
- transport host, 7, 100–4
- trehalose, 47–8
- trunk spines, 3–5
- ultrastructure, 3, 6, 29–32, 81–3
- wet weight, 16–18, 38–40, 43, 53