

The following appendix accompanies the article

Production of marine trematode cercariae: a potentially overlooked path of energy flow in benthic systems

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Table A1. Daily cercarial output (no. snail⁻¹ d⁻¹) of marine cercariae at 20°C as determined in experimental studies. Additional parameters given are latitude (degrees and minutes), mean snail host species shell length (mm), volume of a single cercaria (10⁻⁶ml), type (sporocysts [S], rediae [R]) and mean length (µm) of cercariae-producing structures, and type of downstream hosts (vertebrates, invertebrates, free-living metacercariae). For details see 'Materials and methods' in main article

Parasite species	Host species	Latitude (°)	Host shell length (mm)	Volume single cercaria (ml 10 ⁻⁶)	Cercariae-producing structure Type	Length (µm)	Downstream hosts	Daily cercarial output (no. snail ⁻¹ d ⁻¹)	Source
SCHISTOSOMATIDAE									
<i>Austroilharzia variglandis</i>	<i>Nassarius obsoletus</i>	43° 40' N	20	1.2	S	1017	Vertebrates	70	Stunkard & Hinchliffe (1952) ^a , Sindermann (1960) ^b
<i>Austroilharzia terrigalensis</i>	<i>Velacumantus (Batillaria) australis</i>	32° 00' S	30	1	S	700	Vertebrates	568	Bearup (1956) ^a , Appleton (1983a) ^b
ECHINOSTOMATIDAE									
<i>Himasthla rhigedana</i>	<i>Cerithidea californica</i>	34° 24' N	25	42.2	R	1510	Free-living	320	Adams & Martin (1963) ^a , Fingerut et al. (2003a) ^b
<i>Himasthla elongata</i>	<i>Littorina littorea</i>	56° 53' N	20	24.8	R	2100	Invertebrates	91	Werding (1969) ^a , Greve (1997) ^b
<i>Himasthla continua</i>	<i>Hydrobia ulvae</i>	44° 39' N	3.5	10.3	R	no data	Invertebrates	32	Deblock (1980) ^a , Kisielewski (1998) ^b
<i>Acanthoparyphium</i> sp.	<i>Zeacumantus subcarinatus</i>	45° 50' S	12.5	7.5	R	805	Invertebrates	69.2	Martorelli et al. (2006) ^a , J. Koprivnikar (unpubl. data) ^b
HAPLOPORIDAE									
Haploporida species	<i>Hydrobia ulvae</i>	44° 39' N	3.5	10.2	R	no data	Free-living	9	X. de Montaudouin (unpubl. data) ^a , Kisielewski (1998) ^b
PHILOPHTHALMIDAE									
<i>Parorchis acanthus</i>	<i>Cerithidea californica</i>	34° 24' N	25	89.9	R	3500	Free-living	231	Dimitrov et al (2001) ^a , Fingerut et al. (2003a) ^b
<i>Parorchis acanthus</i>	<i>Nucella lapillus</i>	52° 25' N	30	89.9	R	3500	Invertebrates	766	Dimitrov et al (2001) ^a , Rees (1948) ^b
<i>Philophthalmus</i> sp.	<i>Zeacumantus subcarinatus</i>	45° 50' S	12.5	14.7	R	1600	Free-living	13.4	Martorelli et al (2008) ^a , J. Koprivnikar (unpubl. data) ^b
<i>Philophthalmus burili</i>	<i>Velacumantus (Batillaria) australis</i>	32° 00' S	30	14.8	R	5000	Free-living	254	Howell & Bearup (1967) ^a , Appleton (1983a) ^b
HETEROPHYIDAE									
<i>Euhaplorchis californiensis</i>	<i>Cerithidea californica</i>	34° 24' N	25	0.6	R	350	Vertebrates	19296	Martin (1950) ^a , Fingerut et al. (2003a) ^b
<i>Cryptocotyle concavum</i>	<i>Hydrobia ulvae</i>	44° 39' N	3.5	0.8	R	540	Vertebrates	361	Reimer (1970) ^a , Kisielewski (1998) ^b
<i>Cryptocotyle lingua</i>	<i>Littorina littorea</i>	44° 46' N	20	0.5	R	no data	Vertebrates	see Table A2	Stunkard (1930) ^a , Sindermann & Farrin (1962) ^b
<i>Stictodora lari</i>	<i>Velacumantus (Batillaria) australis</i>	32° 00' S	30	1.6	R	1100	Vertebrates	15195	Bearup (1961) ^a , Appleton (1983a) ^b
RENICOLIDAE									
<i>Renicola buchmanani</i>	<i>Cerithidea californica</i>	34° 24' N	25	2.1	S	no data	Vertebrates	1650	Martin & Gregory (1951) ^a , Fingerut et al. (2003a) ^b
<i>Renicola roscovita</i>	<i>Littorina littorea</i>	55° 01' N	20	1.5	S	625	Invertebrates	522	Werding (1969) ^a , Thielges & Rick (2006) ^b
MICROPHALLIDAE									
<i>Maritrema subdolum</i>	<i>Hydrobia ulvae</i>	54° 56' N	3.5	0.2	S	450	Invertebrates	85	Deblock (1980) ^a , Mouritsen (2002) ^b
<i>Maritrema novaezealandensis</i>	<i>Zeacumantus subcarinatus</i>	45° 50' S	12.5	0.1	S	209	Invertebrates	126	Martorelli et al. (2004) ^a , Fredensborg et al. (2005) ^b
<i>Microphallus similis</i>	<i>Littorina saxatilis</i>	54° 27' N	10	0.4	S	no data	Invertebrates	see Table A2	McCarthy et al (2002) ^{a,b}
<i>Maritrema arenaria</i>	<i>Littorina saxatilis</i>	54° 27' N	10	0.1	S	no data	Invertebrates	see Table A2	McCarthy et al (2002) ^{a,b}
^a Source for measurements									
^b Source for shedding rates									

Table A2. Mean prevalence (%), host density (ind. m⁻²) and shedding rates at approximately 20°C (no. d⁻¹ snail⁻¹) from literature sources used to calculate daily cercarial output (DO) and annual cercarial production (AP) of trematodes in different coastal systems. For details see 'Materials and methods' in main article

Site	Parasite	Host	Prevalence (%)	Host density (ind. m ⁻²)	Shedding rate (no. snail ⁻¹ d ⁻¹)	Temperature (°C)	Source
List tidal basin, Wadden Sea, Germany	<i>Himasthla elongata</i>	<i>Littorina littorea</i>	2.4	132	672	17–20	Thieltges et al. (2006) ^a , Nicolaysen (1996) ^b , Prinz (2005) ^c
	<i>Renicola roscovita</i>	<i>Littorina littorea</i>	4.8	132	521.8	20	Thieltges et al. (2006) ^a , Nicolaysen (1996) ^b , Thieltges & Rick (2006) ^c
	<i>Maritrema subdolum</i>	<i>Hydrobia ulvae</i>	3.5	50233	85	20	Thieltges et al. (2006) ^a , Reise et al. (1989) ^b , Mouritsen (2002) ^c
Wismar Bight, Baltic Sea, Germany	<i>Maritrema subdolum</i>	<i>Hydrobia ventrosa</i>	6.5	25000	30	19	Kube et al. (2002) ^a , Probst et al. (2000) ^b , Meissner & Bick (1999) ^c
Cardigan Bay, Wales County Antrim, Northern Ireland	<i>Parorchis acanthus</i>	<i>Nucella lapillus</i>	3.5	16.5	766	20	James (1968) ^{a,b} , Rees (1948) ^c
	<i>Microphallus similis</i>	<i>Littorina saxatilis</i>	42	120	74.9	Room temperature	Matthews et al. (1985) ^{a,b} , McCarthy et al. (2002) ^c
	<i>Maritrema arenaria</i>	<i>Littorina saxatilis</i>	0.75	120	221.1	Room temperature	Matthews et al. (1985) ^{a,b} , McCarthy et al. (2002) ^c
Arcachon Bay, France	<i>Himasthla continua</i>	<i>Hydrobia ulvae</i>	0.01	1700	61.2	20	Montaudouin et al. (2003) ^{a,b} , Kisielewski (1998) ^c
	Haploporidae species	<i>Hydrobia ulvae</i>	3.04	1700	18.4	20	Montaudouin et al. (2003) ^{a,b} , Kisielewski (1998) ^c
	<i>Cryptocotyle concava</i>	<i>Hydrobia ulvae</i>	0.9	1700	991.6	20	Montaudouin et al. (2003) ^{a,b} , Kisielewski (1998) ^c
Carpinteria Salt Marsh, California, USA	<i>Himasthla rhigedana</i>	<i>Cerithidea californica</i>	10	460	320	20	Fingerut et al. (2003b) ^{a,b} , Fingerut et al. (2003a) ^c
Eastport and Roque Bluffs, Maine, USA	<i>Cryptocotyle lingua</i>	<i>Littorina littorea</i>	5.7	600	670	14–17	Pohley (1976) ^a , Bertness (1984) ^b , Sindermann & Farrin (1962) ^c
Swan Estuary, Australia	<i>Stictodora lari</i>	<i>Velacumantus (Batillaria) australis</i>		13.6 ^d	15195	20	Appleton (1983b) ^{a,b} , Appleton (1983a) ^c
	<i>Austroilharzia terrigalensis</i>	<i>Velacumantus (Batillaria) australis</i>		2 ^d	568	20	Appleton (1983b) ^{a,b} , Appleton (1983a) ^c
	<i>Philophthalmus burili</i>	<i>Velacumantus (Batillaria) australis</i>		3.6 ^d	254	20	Appleton (1983b) ^{a,b} , Appleton (1983a) ^c
Otago Harbour, New Zealand	<i>Maritrema novozealandensis</i>	<i>Zeacumantus subcarinatus</i>	12.3	1072	126	20	Fredensborg et al. (2006) ^{a,b} , Fredensborg et al. (2005) ^c
	<i>Acanthoparyphium</i> sp.	<i>Zeacumantus subcarinatus</i>	2	1072	69.2	20	Fredensborg et al. (2006) ^{a,b} , J. Koprivnikar (unpubl. data) ^c
	<i>Philophthalmus</i> sp.	<i>Zeacumantus subcarinatus</i>	3.9	1072	13.4	20	Fredensborg et al. (2006) ^{a,b} , J. Koprivnikar (unpubl. data) ^c
^a Source for prevalence							
^b Source for host density							
^c Source for shedding rate							
^d Source gives density of infected hosts							

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