



IRISH FISHERIES INVESTIGATIONS

SERIES A (Freshwater)

No. 21 (1981)

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J. P. K. HORKAN

**A LIST OF ROTATORIA KNOWN TO OCCUR IN IRELAND
WITH NOTES ON THEIR HABITATS AND DISTRIBUTION.**

A list of the Rotatoria known to occur in Ireland, with notes on their habitats and distribution

by

J. P. K. HORKAN.

An Foras Forbartha, Water Resources Division, Pottery Road, Dun Laoghaire, Co. Dublin.

ABSTRACT

A total of 315 species of rotifers are known to occur in Ireland. Of these 71 belong to the Bdelloidea and 244 to the Monogononta. Three species new to Ireland are now recorded and one of them is also a new record for the British Isles. A taxonomic list of the 315 species is given together with notes on ecology, where possible, and distribution. The names of recorders are included.

INTRODUCTION

The first known rotifer recorded from Ireland was *Philodina roseola* Ehrenberg. Ehrenberg (1849) found this species in some "inky rain". Unfortunately, the exact location is unknown.

Extensive collections of the Rotatoria were made by Glascott (1893), mainly in the eastern counties of Ireland, although rotifers from other areas, including County Kerry, are listed in her records. Hood (1895) published a comprehensive list for County Mayo. The Clare Island Survey produced two important papers, one on the bdelloids (Murray, 1912) and the other on the Monogononta (Rousselet, 1912). Some minor rotifer recordings were also noted by Southern (1908) who mentions seven species found by Glascott.

No other work was carried out specifically on rotifers but West and West (1906) and Southern and Gardiner (1926), included them in lists of planktonic organisms for a number of Irish lakes. Rotifers were also recorded from Lough Neagh by Dakin and Latache (1913) and by Graham (1970). Some rotifers were also listed by Flanagan and Toner (1975). Detailed information on the plankton of the Killarney lakes includes a discussion on the common rotifers found there by White and Horkan (Anon., 1976).

The present list includes rotifers collected since October, 1971, in plankton samples, taken at monthly or more frequent intervals, in the Killarney lakes (Grid Ref. V.9393—V.9083), County Kerry. In addition, plankton samples have been examined by the author or by previous workers from each of the following locations:

Achill Island	F7212-L7295	Lough Ennell	N4548-4244	Newport	L9795
Castlebar Lakes	L0890-1387	Lough Leane	V9393-9484	River Shannon	M9969-7074
Clare Island	L6684	Lough Mullagh	N6786-6785	Roonah	L7476
Inishturk	L6075	Lough Neagh	H9895-J0564	Roundstone	L7074
Knappagh Lakes	L9780	Lough Ree	M9969-N0466	Westport	L9984
Lough Corrib	M1555-2829	Louisburgh	L8181		
Lough Derg	M8403-R7074	Mawmeen	L6542		

Some locations reported in the literature are rather vague and are not listed in this paper.

The classification used is that of Berzins (Limnofauna Europaea, 1967). Species have been up-dated according to Harring (1913), Voigt (1957), and Bartos, (1959).

The distribution of the different species is presented in the following manner:

Species

Collector:

A : Author	G : Glascott (1893)	R : Rousselet (1912)
D & L: Dakin and Latarche (1913)	H : Hood (1895)	S & G: Southern and Gardiner (1926)
F & T: Flanagan and Toner (1975)	H & G: Hudson and Gosse (1889)	W&W: West and West (1906).
	M : Murray (1912)	

Vice-county number (Praeger 1901)

Locality

Type of habitat

Ortho-Phosphate: $o\text{-P}_0_4$ mg/l P

Conductivity as $\mu\text{S}/\text{cm}$

Nitrate : NO_3 as mg/l N

Hardness as mg/l CaCO_3

In the case of the habitat described for a particular rotifer species records given in the literature are often imprecise. For instance, *Habrotrocha angusticollis* is described as being found in both "moss" and 'marsh' but it is not known whether it was found in, say, Achill in one or both habitats. Species identified by the author were always taken from plankton collections as were records from Flanagan and Toner (1975).

SYSTEMATIC LIST

BDELLOIDEA (DIGONONTA)

Family	Habrotrochidae	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
	<i>Scephanotrocha rubra</i> Bryce	M	27	Louisburgh	moss	—	—	—	—
	<i>Habrotrocha angusticollis</i> (Murr.)	M	27	Achill Clare I. Roonagh Louisburgh Westport Castlebar	moss marsh	—	—	—	—
	<i>H. annulata</i> (Murr.)	M	27	Achill	tarn	—	—	—	—
	<i>H. aspera</i> (Bryce)	M	27	Achill	moss	—	—	—	—
	<i>H. bidens</i> (Gosse)	G	6, 12, 27	Westport	streams ponds	—	—	—	—
	<i>H. collaris</i> (Ehr.)	M	27	Clare I. Roonagh	moss	—	—	—	—
	<i>H. constricta</i> (Duj.)	M	27	Clare I.	moss	—	—	—	—
	<i>H. elegans</i> (Milne)	G	6, 27	—	pond quarry	—	—	—	—
	<i>H. lata</i> (Bryce)	M	27	Achill Clare I. Louisburgh Westport	moss tarn	—	—	—	—
	<i>H. leitgebi</i> (Zel.)	M	27	Westport	—	—	—	—	—
	<i>H. microcephala</i> (Murr.)	M	27	Westport	—	—	—	—	—
	<i>H. pulchra</i> (Murr.)	M	27	Achill Inishturk Clare I. Westport Castlebar	moss marsh	—	—	—	—
	<i>H. pusilla</i> (Bryce)	M	27	Achill Louisburgh	moss	—	—	—	—
	<i>H. roeperi</i> (Milne)	M	27	Clare I. Westport	moss	—	—	—	—
	<i>H. tridens</i> (Milne)	M	27	Louisburgh	—	—	—	—	—
Family	Adinetidae								
	<i>Adineta barbata</i> Jans.	M	27	Achill Clare I. Westport Castlebar	moss	—	—	—	—

	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
<i>A. gracilis</i> Jans.	M	27	Achill Clare I. Westport	moss tarn	—	—	—	—
<i>A. tuberculosa</i> Jans.	M	27	—	moss tarn	—	—	—	—
<i>A. vaga</i> (Davis)	G, H, M	12, 16, 27	Louisburgh Westport Roundstone Castlebar	well lake	—	—	—	—
Family Philodinidae								
<i>Mniobia incrassata</i> (Murr.)	M	27	Achill	—	—	—	—	—
<i>M. magna</i> (Plate)	M	27	Achill Clare I. Louisburgh Castlebar	marsh	—	—	—	—
<i>M. russeola</i> (Zeb.)	M	27	Achill Clare I.	moss	—	—	—	—
<i>M. scarlatina</i> (Ehr.)	M	27	Achill Westport	—	—	—	—	—
<i>M. symbiotica</i> (Zel.)	M	27	Achill Clare I. Westport	moss	—	—	—	—
<i>M. tetradon</i> (Ehr.)	M	27	Achill Inishturk Clare I.	moss	—	—	—	—
<i>Ceratotrocha cornigera</i> (Bryce)	M	27	Achill Clare I. Castlebar	moss tarn	—	—	—	—
<i>Rotaria haptica</i> (Gosse)	G	12	—	marsh drain	—	—	—	—
<i>R. macroceros</i> (Gosse)	G, H	12, 27	Knappagh	lake bog on vegetation	—	—	—	—
<i>R. macrura</i> (Ehr.)	G, H, M	12, 27	Clare I. Westport	moss pond	—	—	—	—
<i>R. rotatoria</i> (Pallas)	G, H, M	16, 27	Achill Clare I. Westport Roundstone Castlebar	moss	—	—	—	—
<i>R. sordida</i> (West)	M	27	Achill Clare I. Louisburgh Westport Castlebar	moss marsh	—	—	—	—

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	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conductivity	Hardness
<i>R. tardigrada</i> (Ehr.)	H, M	16, 27	Achill Roonagh Louisburgh Westport Roundstone	marsh bog-pool	—	—	—	—
<i>R. trisecta</i> (Weber)	M	27	Clare I.	marsh	—	—	—	—
<i>Macrotrachela aculeata</i> (Milne)	M	27	Roonagh Louisburgh	—	—	—	—	—
<i>M. crucicornis</i> (Murr.)	M	27	Louisburgh	—	—	—	—	—
<i>M. ehrenbergi</i> (Jans.)	M	27	Westport Castlebar	—	—	—	—	—
<i>M. habita</i> (Bryce)	M	27	Inishturk Clare I. Louisburgh Westport Castlebar	moss salt-marsh	—	—	—	—
<i>M. multispinosa</i> Thomps.	M	27	Achill Clare I. Louisburgh Westport	moss salt-marsh	—	—	—	—
<i>M. muricata</i> (Murr.)	M	27	Clare I.	moss	—	—	—	—
<i>M. musculosa</i> Milne	M	27	Castlebar	—	—	—	—	—
<i>M. papillosa</i> Thomps.	G, M	6, 12, 27	Achill Inishturk Clare I. Louisburgh Westport Castlebar	moss salt-marsh	—	—	—	—
<i>M. plicata</i> (Bryce)	M	27	Achill Inishturk Clare I. Louisburgh Westport Castlebar	moss tarn marsh	—	—	—	—
<i>M. plicata hirundinella</i> (Murr.)	M	27	Achill	—	—	—	—	—
<i>M. quadricornifera</i> Milne	M	27	Achill Clare I. Louisburgh Westport Castlebar	moss tarn marsh	—	—	—	—
<i>Embata parasitica</i> (Gigl.)	H	27	Westport	<i>Asellus</i> <i>Gammarus</i>	—	—	—	—
<i>Philodina acuticornis</i> Murr.	M	27	Clare I. Castlebar	—	—	—	—	—
<i>P. brevipes</i> Murr.	M	27	Castlebar	—	—	—	—	—

	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
<i>P. citrina</i> Ehr.	G, H, M	2, 12, 27	Achill Westport Castlebar	tarn on <i>Chara</i>	—	—	—	—
<i>P. erythrophthalma</i> Ehr.	G, H, M	6, 12, 27	Clare I. Knappagh	moss weeds <i>Fredricella</i>	—	—	—	—
<i>P. flaviceps</i> Bryce	M	27	Clare I. Louisburgh Westport Castlebar	moss	—	—	—	—
<i>P. macrostyla tuberculata</i> (Gosse)	H	27	Westport	detritus	—	—	—	—
<i>P. megalotrocha</i> (Ehr.)	G	12	—	ponds streams	—	—	—	—
<i>P. nemoralis</i> Bryce	M	27	Achill Clare I. Westport Castlebar	marsh tarn	—	—	—	—
<i>P. plena</i> (Bryce)	M	27	Louisburgh Westport Castlebar	—	—	—	—	—
<i>P. roseola</i> (Ehr.)	G, H, M	2, 6, 12, 27	Westport Castlebar	ponds ditches quarry lake	—	—	—	—
<i>P. rugosa</i> Bryce	M	27	Achill Clare I. Westport Castlebar	moss tarn marsh	—	—	—	—
<i>P. vorax</i> (Jans.)	M	27	Castlebar	—	—	—	—	—
<i>Dissotrocha aculeata</i> (Ehr.)	G, H, M	6, 12, 27	Clare I. Roonagh Louisburgh	moss ponds, bogs streams	—	—	—	—
<i>D. macrostyla</i> (Ehr.)	M	27	Achill Clare I. Roonagh Louisburgh Westport Castlebar	moss salt- marsh	—	—	—	—
<i>D. spinosa</i> (Bryce)	M	27	Clare I. Louisburgh	—	—	—	—	—
<i>Pleuretra alpium</i> Ehr.	M	27	Achill Westport Castlebar	—	—	—	—	—
<i>P. brycei</i> (Weber)	M	27	Achill Westport	tarn	—	—	—	—
<i>P. humerosa</i> (Murr.)	M	27	Westport	—	—	—	—	—

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<i>Philodinaus paradoxus</i> (Murr.)	M	27	Achill Louisburgh Westport	tarn on vegetation	—	—	—	—
MONOGONONTA								
Family Brachionidae								
<i>Brachionus angularis</i> Gosse	H, R	27	Achill Westport	quarry	—	—	—	—
<i>B. calyciflorus</i> Gosse	H	27	Louisburgh Westport	quarry	—	—	—	—
<i>B. leydigii</i> Cohn.	H	27	Louisburgh Westport	tidal pool	—	—	—	—
<i>B. quadridentatus</i> Herm.	G, H, R	6, 12, 27	Achill Westport	ponds	—	—	—	—
<i>B. urceolaris</i> Müller	A, G, H, R	6, 12, 27	Achill Clare I. Westport R. Shannon	bog pools, ponds, plankton	0.02—0.36	.23—1.60	420—480	190—220
<i>B. urceolaris sericus</i> Rouss.	R	27	Achill	—	—	—	—	—
<i>B. urceolaris rubens</i> Ehr.	G, H, R	6, 27	Louisburgh Westport	pond	—	—	—	—
<i>Platylas quadricornis</i> Ehr.	H	16, 27	Roundstone Knappagh	lakes	—	—	—	—
Family Keratellidae								
<i>Keratella cochlearis</i> Gosse	A, F & T, D & L, H, R, S, W & W	2, 16, 23, 27, 30	Achill Clare I. Louisburgh Westport Castlebar L. Ennell Mullagh L.	all types of habitat	.01—0.56	.01—1.60	90—480	40—250
* <i>K. hiemalis</i> Carl.	A	2	Killarney	plankton	.01—0.21	.01—0.36	90—150	40—50
<i>K. quadrata</i> (Müller)	A, D & L, R, S & G, W & W	2, 23, 27	Achill Clare I. Westport Castlebar L. Ree L. Ennell	ponds, marshes, bog pools, plankton	.01—0.56	.01—1.60	90—480	40—250
<i>K. quadrata</i> var. <i>curvicornis</i> (Ehr.)	H, R	27	Clare I. Westport	marshes, bog pools	—	—	—	—
<i>K. serrulata</i> (Ehr.)	G, H, R	12, 16, 27	Achill Clare I. Westport Roundstone	bogs, bog pools	—	—	—	—
<i>K. testuda</i> (Ehr.)	H	27	Castlebar	lake	.02—0.05	.54—0.71	275	115

*New to British Isles.

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	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
<i>K. valga</i> (Ehr.)	R	27	Achill Clare I.	—	—	—	—	—
<i>Anuraeopsis fissa</i> (Gosse)	H, R	27	Louisburgh Westport Castlebar	bog pools, marshes	—	—	—	—
<i>Argonotholca foliacea</i> (Ehr.)	H	27	Westport Castlebar	ponds, lakes	—	—	—	—
<i>Kellicottia longispina</i> (Kellicott)	A, F & T, D & L, H, R, S & G,	2, 16, 23, 27	Achill Clare I. Westport Castlebar R. Shannon L. Ennell Killarney L. Neagh	plankton	.01—.56	.01—1.60	90—480	40—250
<i>Notholca acuminata</i> (Ehr.)	G, H, S & G	12, 27	Westport R. Shannon	marsh, lagoon, tidal pools, pond, plankton	.01—.36	.23—1.23	310—480	120—220
<i>N. labis</i> Gosse	H	27	Westport	quarry pond	—	—	—	—
<i>N. squamula</i> (Müller)	H, R	27	Clare I. Westport	tidal pools, mossy pool	—	—	—	—
<i>N. striata</i> (Müller)	D & L	—	L. Neagh	plankton	—	—	—	—
Family Epiphanidae								
<i>Lophocharis oxysternum</i> (Gosse)	G, H M, R	6, 12, 27	Westport Castlebar	on weeds in lakes, ponds, streams	—	—	—	—
<i>Mytilina mucronata</i> (Müller)	G, H, R	2, 6, 27	Clare I. Westport	bog pools, pond, marsh drains, moss	—	—	—	—
<i>M. spinigera</i> (Ehr.)	G, H	6, 12, 27	Westport	quarry, pond	—	—	—	—
<i>M. trigona</i> (Gosse)	R	27	Louisburgh	—	—	—	—	—
<i>M. ventralis</i> (Ehr.)	H, R	27	Clare I. Westport	ditch	—	—	—	—
<i>M. ventralis brevispina</i> (Ehr.)	G, H, R	6, 12, 27	Clare I. Louisburgh Castlebar Knappagh	ponds lakes	.02—.05	.54—.71	275	115

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<i>Diplois daviesiae</i> Gosse	H	27	Westport Castlebar	lakes	—	—	—	—
<i>Euchlanis deflexa</i> (Gosse)	G, H	6, 12, 27	Westport	marsh, pond	—	—	—	—
<i>E. dilatata</i> Ehr.	G, S & G	6, 12	R. Shannon	plankton	.01—.13	.23—1.60	90—480	45—220
<i>E. dilatata macrura</i> Ehr.	G, H	13, 27	Westport Castlebar	lakes, stream	—	—	—	—
<i>E. oropha</i> Gosse	R	27	Achill Clare I. Louisburgh	—	—	—	—	—
<i>E. pyriformis</i> Gosse	G	12	—	bog, stream	—	—	—	—
<i>E. triquetra</i> Ehr.	G, H, R	6, 12, 27	Clare I. Louisburgh Knappagh	lakes, ponds, drains, streams	—	—	—	—
<i>Beauchampiella eudactylota</i> (Gosse)	H	27	Castlebar	lake sediment	—	—	—	—
<i>Epiphanes senta</i> (Müller)	G, H, R	6, 27	Achill Westport	pond	—	—	—	—
<i>Eosphora ehrenbergi</i> (Weber)	G, H	12, 27	Westport	bog pool, marsh drain	—	—	—	—
<i>E. najas</i> Ehr.	H	27	Knappagh	lake sediment	—	—	—	—
<i>Pleurotrocha petromyzon</i> Ehr.	G, H, R	6, 12, 27	Clare I. Westport	lake, pond, stream	—	—	—	—
<i>P. robusta</i> (Glascott)	G	12	—	ditch	—	—	—	—
<i>Monommata aequalis</i> (Ehr.)	G, H	12, 27	Westport	bog pool, pond	—	—	—	—
<i>M. grandis</i> Tessin	R	27	Clare I.	lake sediment	—	—	—	—
<i>M. longiseta</i> (Müller)	G, H, R	6, 12, 16 27	Achill Clare I. Roundstone Knappagh	lake sediment, ponds, ditches	—	—	—	—
Family Proalidae								
<i>Microcodides chlaena</i> (Gosse)	H	27, 34, 35	Westport	bog pool, marsh pool	—	—	—	—
<i>M. robustus</i> (Glascott)	G, R	6, 27	Clare I.	—	—	—	—	—

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<i>Cyrtonia tuba</i> (Ehr.)	H	27	Westport	bog pool	—	—	—	—
<i>Proalinopsis caudatus</i> (Collins)	G, H, R	6, 27	Achill Clare I. Westport	bog pools, marshes, ponds, lakes	—	—	—	—
<i>Proales decipiens</i> (Ehr.)	G, H, R	12, 17	Achill Westport	bogs, marshes, drains, quarry	—	—	—	—
<i>P. gigantea</i> (Glascott)	G	12	—	pond, in egg- clusters of water snails	—	—	—	—
<i>P. micropus</i> (Gosse)	G, H	12, 27	Westport	pond, marsh, in egg- clusters of water snails	—	—	—	—
<i>P. sordida</i> (Gosse)	G, H, R	6, 21, 27	Achill Westport Castlebar	bog pools, marshes, canal, stream	—	—	—	—
<i>P. theodora</i> (Gosse)	H	27	Castlebar	lake	.02—.05	.54—.71	275	115
Family Lecanidae								
<i>Lecane affinis</i> (Lev.)	R	27	Achill Clare I.	—	—	—	—	—
<i>L. arcuta</i> (Bryce)	R	27	Louisburgh	—	—	—	—	—
<i>L. bulla</i> (Gosse)	H, R	27	Achill Clare I. Westport Castlebar	lakes, marsh	—	—	—	—
<i>L. cornuta</i> (Müller)	G, H, R	6, 12, 27	Achill Clare I. Westport	—	—	—	—	—
<i>L. flexilis</i> (Gosse)	G, H	6, 12, 27	Westport Castlebar	bogs, tub of water	—	—	—	—
<i>L. galeata</i> (Bryce)	R	27	Achill	—	—	—	—	—
<i>L. gissensis</i> (Eckstein)	H	27	Westport	lakes	—	—	—	—
<i>L. hamata</i> (Stokes)	R	27	Clare I.	—	—	—	—	—
<i>L. luna</i> (Müller)	A, G, H, R, S & G	2, 6, 12, 13, 16, 27	Achill Clare I. Louisburgh Westport R. Shannon	common almost every- where sampled	.01—.36	.08—1.60	65—480	40—220

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<i>L. lunaris</i> (Ehr.)	G, H, R, S & G	2, 6, 12, 13, 16, 27	Achill Clare I. Louisburgh Roundstone R. Shannon	common almost every- where sampled	.01—.36	.23—1.60	65—480	45—220
<i>L. quadridentata</i> (Ehr.)	G, H	12, 27	Westport	tidal pool, bog-pool	—	—	—	—
<i>L. signifera ploenensis</i> (Voigt)	R	27	Achill	—	—	—	—	—
<i>Scaridium longicaudum</i> (Müller)	G, H	12, 27	Castlebar	lake, bogs	.02—.05	.54—.71	275	115
<i>Trichotria pocillum</i> (Müller)	G, H, R	6, 12, 16, 27	Louisburgh Westport Castlebar Roundstone	marsh pool, bogs, ponds, lake	.02—.05	.54—.71	275	115
<i>T. tetractis</i> (Ehr.)	A, G, H, R	2, 12, 27	Achill Clare I. Westport L. Leane	lakes, bog pools	.01—.17	.08—.46	90—150	40—50
<i>T. truncata</i> (White)	R	27	—	—	—	—	—	—
<i>Macrochaetus subquadratus vulgaris</i> Berz.	H	27	Westport	lake	—	—	—	—
Family Lepadellidae								
<i>Lepadella ovalis</i> (Müller)	G, H, R	6, 12, 13, 27	Achill Clare I. Westport Castlebar	pond, marshes, lakes	—	—	—	—
<i>L. patella</i> (Müller)	G, H	12, 27	Westport Castlebar	"all fresh waters"	—	—	—	—
<i>L. triptera</i> Ehr.	G, H, M, R	2, 6, 12, 27	Roonagh Louisburgh Westport	detritus from bogs, marsh ponds, lakes, streams	—	—	—	—
<i>Colurella adriatica</i> Ehr.	A, G, H, R	2, 6, 12, 27	Achill I. Clare I. L. Leane	lakes ponds, bog pools, marshes, streams	.01—.17	.08—.46	90—150	40—50
<i>C. colorus</i> (Ehr.)	G, H	6, 12, 27	Westport	marine	—	—	—	—
<i>C. dicentra</i> (Gosse)	H	27	Westport	lagoon, tidal pools	—	—	—	—

	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
<i>C. obtusa</i> (Gosse)	G	6, 12, 13,		ponds, bogs, streams	—	—	—	—
<i>C. tessellata</i> (Glascott)	G	12	—	bogs	—	—	—	—
<i>C. uncinata</i> (Müller)	H	27	Westport	brackish water, marsh	—	—	—	—
<i>C. uncinata deflexa</i> (Ehr.)	G, H	6, 12, 13, 27	Westport Castlebar	lagoon, ponds, ditches, marsh drain	—	—	—	—
<i>Paracolurella pertyi</i> (Hood)	H	27	Westport Castlebar	lake, marsh, in detritus	—	—	—	—
<i>Squatinnella lamellaris</i> (Müller)	G, H	6, 12, 16	Roundstone	marsh drain, pond	—	—	—	—
<i>S. mutica</i> (Ehr.)	H	27	Westport	on vegeta- tion in lakes, marsh pond	—	—	—	—
<i>S. tridentata</i> (Fres.)	R	27	Clare I.	—	—	—	—	—
<i>Bryceela stylata</i> (Milne)	M	27	—	—	—	—	—	—
<i>Rhinoglena fontinalis</i> Ehr.	H	27	Castlebar	lake	—	—	—	—
<i>Notommata aurita</i> (Müller)	G	6, 12	—	streams, ponds	—	—	—	—
<i>N. brachyota</i> Ehr.	G, H	12, 27	Westport Castlebar	bog pools, ponds, in detritus	—	—	—	—
<i>N. cerebrus</i> (Gosse)	G, H, R	12, 27	Achill Westport	marshes, bog pools, lakes	—	—	—	—
<i>N. copeus</i> Ehr.	H	27	Westport Castlebar	bog pool, lake sediment	—	—	—	—
<i>N. cyrtopus</i> Gosse	G, H	12, 13, 27	Westport	bog pool, pond, streams	—	—	—	—
<i>N. pachyura</i> (Gosse)	G, H	6, 12, 16, 21, 27	Achill Clare I. Westport Castlebar near Roundstone	ditch, bog, streams, canal, lake sediment	—	—	—	—

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	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
<i>N. saccigera</i> Ehr.	G, H	12, 27	Knappagh	pools, ponds, lake sediment	—	—	—	—
<i>N. tripus</i> Ehr.	G, H	12, 27	Clare I. Westport	bog pool, streams	—	—	—	—
<i>Enteroplea lacustris</i> Ehr.	H	27	Castlebar Westport	bog pool	—	—	—	—
Family Lindiidae								
<i>Lindia torulosa</i> Duj.	G	12	—	among detritus in a pond	—	—	—	—
Family Ituridae								
<i>Itura aurita</i> (Ehr.)	G	12	—	bogs, drains	—	—	—	—
<i>Aspelta circinator</i> (Gosse)	G, H	12, 27	Westport Castlebar	detritus in lake, ponds, bogs	—	—	—	—
<i>Cephalodella auriculata</i> (Müller)	G, H	12, 27	Westport	on weeds in lakes, marsh pool, drain	—	—	—	—
<i>C. catellina</i> (Müller)	G, H	12, 27	—	brackish water, pond, bog	—	—	—	—
<i>C. eva</i> (Gosse)	G	12	—	pond, ditches, bog	—	—	—	—
<i>C. exigua</i> (Gosse)	G	12	—	marsh drain	—	—	—	—
<i>C. forcipata</i> (Ehr.)	G, H, R	2, 6, 12, 13, 27	Achill Westport	detritus in ponds, quarry, bog pool, streams	—	—	—	—
<i>C. forcifula</i> (Ehr.)	G, H	6, 12, 21, 27	Westport	lake sediment, bog pool, streams	—	—	—	—
<i>C. gibba</i> (Ehr.)	G, H, R	2, 6, 12, 13, 21, 27	Achill Clare I. Castlebar	lake, ponds, bogs, canal, streams	.02—0.05	.54—0.71	275	115

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	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
<i>C. globata</i> (Gosse)	H & G, H	27	Westport	quarry, intertidal pool	—	—	—	—
<i>C. gracilis</i> (Ehr.)	G	12	—	stream	—	—	—	—
<i>C. hoodi</i> (Gosse)	G ₂ H	6, 12, 27	Clare I. Castlebar Knappagh	lakes, bogs, marsh pools, ponds, streams	—	—	—	—
<i>C. megalotrocha</i> (Glascott)	G, H & G	12, 29	—	bogs, streams	—	—	—	—
<i>C. megalotrocha compressa</i> (Glascott)	G, H	6, 12, 27	Westport Castlebar	lake pond, stream	.02—-.05	.54—.71	275	115
<i>C. nana</i> Myers	G, H	12, 27	Westport	stream	—	—	—	—
<i>C. sterea</i> (Gosse)	G	2, 12	—	bog-moss	—	—	—	—
<i>C. tenuior</i> (Gosse)	R	27	Achill	—	—	—	—	—
<i>C. ventripes</i> Dixon-Nutt.	R	27	Clare I.	—	—	—	—	—
<i>Taphrocampa annulosa</i> Gosse	G, H, R	2, 6, 12, 27	Clare I. Knappagh	in lakes on detritus	—	—	—	—
<i>T. selenura</i> (Gosse)	R	27	Clare I.	—	—	—	—	—
<i>Eothinia elongata</i> (Ehr.)	G, R	27	Clare I. Westport	lake, bog	—	—	—	—
<i>E. lucens</i> (Glascott)	G	12	—	pond	—	—	—	—
Family Trichocercidae								
<i>Trichocerca bicristata</i> (Gosse)	G, H, R	12, 27	Achill Westport	lakes, marshes, drain, bog pool, river	—	—	—	—
<i>T. birostris</i> (Mink.)	H, R	27	Clare I.	bog-pools	—	—	—	—
<i>T. brachyura</i> (Gosse)	G, R	6, 12, 27	Clare I.	bogs, drains	—	—	—	—
<i>T. cavia</i> (Gosse)	G	6	—	stream	—	—	—	—
<i>T. capucina</i> (Weir & Zach.)	S & G	—	L. Derg	plankton	.01—.36	.23—1.60	65—480	45—220
<i>T. dixon-nuttalli</i> (Jenn.)	R	27	Clare I.	—	—	—	—	—
<i>T. elongata</i> (Gosse)	H	27	Westport Castlebar	pools, lakes	—	—	—	—

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<i>T. helminthoides</i> (Gosse)	G	12	—	marsh drain	—	—	—	—
<i>T. iernis</i> (Gosse)	H	27, 29	Westport	lakes	—	—	—	—
<i>T. intermedia</i> (Stenroos)	R	27	Achill	—	—	—	—	—
<i>T. jenningsi</i> Voigt.	G, H, R	12, 27	Achill	—	—	—	—	—
<i>T. longiseta</i> (Schränk)	A, G, H, R	12, 16, 27	Achill Clare I. Westport Roundstone Knappagh	lakes, marsh pool, drain	.01—.10	.23—1.60	310—480	120—220
<i>T. lophoessa</i> (Gosse)	H	27	Westport	pool	—	—	—	—
<i>T. porcellus</i> (Gosse)	G, H, R S & G	6, 12, 27	Clare I. Westport Knappagh R. Shannon	lake sediments, plankton, pools, streams	.01—.36	.23—1.60	65—480	45—220
<i>T. rattus</i> (Müller)	G, H	6, 12, 27	Westport	pond, quarry, bog, streams	—	—	—	—
<i>T. rattus carnita</i> (Ehr.)	H, R	27	Clare I. Westport	lakes, marsh, bog pools	—	—	—	—
<i>T. rosea</i> (Stenroos)	R	—	Achill	—	—	—	—	—
<i>T. rousseleti</i> (Voigt)	R, S & G	27	Achill R. Shannon	plankton	.01—.36	.23—1.60	65—480	45—220
<i>T. similis</i> (Wier)	H, R	27	L6684	bog-pools	—	—	—	—
<i>T. stylata</i> (Gosse)	H	27	Westport	pool	—	—	—	—
<i>T. tenuior</i> (Gosse)	G	2, 12	—	bog-moss marsh drain	—	—	—	—
<i>T. tigris</i> (Müller)	H, R	12, 27	Achill Westport Castlebar	bog-pools, marsh drain	—0.05	0.54—.71	275	115
<i>Ascomorphella volvocicola</i> (Plate)	H, R	27	Clare I. Castlebar	in <i>Volvox</i> spp.	.02—.05	.54—.71	275	115
Family Gastropodidae								
<i>Bipalpus hudsoni</i> (Imhof)	M, R	27	Achill	lake	—	—	—	—
<i>Ploesoma lenticulare</i> Herrick	A, H, R	2, 27	Achill Clare I. Westport L. Derg L. Leane	lakes	.01—.36	.08—1.60	65—480	40—220

	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conductivity	Hardness
<i>P. triacanthum</i> (Berg.)	R	27	Achill	—	—	—	—	—
<i>P. truncatum</i> (Lev.)	S & G	—	R. Shannon	plankton	.01—.36	.23—1.60	65—480	45—220
<i>Gastropus truncata</i> Imhof	A, M, R, S & G	2, 27	Achill L. Leane	plankton	.01—.17	.08—.46	90—150	40—50
<i>Postclausa hyptopus</i> (Ehr.)	G, H, R	2, 6, 12, 27	Clare I. Westport	bog pool, ponds, streams	—	—	—	—
<i>P. minor</i> (Rousselet)	H	27	Westport	marsh	—	—	—	—
<i>Ascomorpha ecaudis</i> Petry	G, H, R	6, 27	Achill Westport	pool, ponds, drains	—	—	—	—
<i>A. ovalis</i> (Berg.)	R, S & G	27	Achill Clare I. R. Shannon	plankton	.01—.36	.23—1.60	65—480	45—220
Family Synchaetidae								
<i>Polyarthra dolichoptera</i> Idelson	H, M, R	27	Westport Castlebar	—	—	—	—	—
<i>P. euryptera</i> Wierz.	H, R	27	Achill Clare I, Westport Castlebar	lakes, bog pools	—	—	—	—
* <i>P. remata</i> Skor.	A	2	Killarney	plankton	.01—.07	.08—.46	90—150	40—50
<i>P. vulgaris</i> Carlin	A, S & G	2	R. Shannon L. Leane	plankton	.01—.36	.08—1.60	65—480	40—220
<i>Synchaeta baltica</i> Ehr.	H	27	Environs of Westport	lagoon, tidal pools	—	—	—	—
<i>S. longipes</i> Gosse	H	27	Newport pagh	lake	—	—	—	—
<i>S. oblonga</i> Ehr.	H, R	27	Clare I. Castlebar lakes area	quarry	—	—	—	—
<i>S. pectinata</i> Ehr.	G, H, R	12, 27	Achill Clare I. Louisburgh Castlebar	bog pools, ponds	—	—	—	—
<i>S. tavina</i> Hood	H	27	Environs of Westport	lagoon, tidal pools	—	—	—	—
<i>S. tremula</i> (Müller)	G, H, R, S & G	6, 12, 27	Clare I. Castlebar R. Shannon	bogs, drain, stream, plankton	.01—.36	.23—1.60	65—480	45—220

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	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
Family Dicranophoridae								
<i>Albertia intrusor</i> Gosse	H	27	Knappagh	parasite on oligochaetes, lake sediments	—	—	—	—
<i>Paradicranophorus hudsoni</i> (Glascott)	G	12	—	tidal pool in a river mouth	—	—	—	—
<i>Dicranophorus caudatus</i> (Ehr.)	G, H, R	12, 27	Achill Westport	pools	—	—	—	—
<i>D. forcipatus</i> (Müller)	G, H, M, R	6, 12, 27	Achill Clare I. Westport	bog pool, ponds, streams	—	—	—	—
<i>D. grandis</i> (Ehr.)	G	6, 12	—	streams	—	—	—	—
<i>D. lütkeni</i> (Berg.)	G	12	—	pond	—	—	—	—
<i>D. uncinatus</i> (Milne)	G, H, H & G	12, 27, 29	Westport	bog-pools, marsh drain	—	—	—	—
<i>Encentrum felix</i> (Müller)	G	12	—	marsh drain	—	—	—	—
<i>E. grande</i> (West)	G	6, 12	—	streams	—	—	—	—
<i>E. marinum</i> (Duj.)	G, H	6, 12, 27	Westport	lagoon, tidal-pools, marsh drain	—	—	—	—
<i>Paracentrum saundersiae</i> (Hudson)	G, H	12, 27	Westport Area and Castlebar lakes area	detritus, stream	—	—	—	—
Family Asplanchnidae								
<i>Asplanchna priodonta</i> Gosse	A, S & G W & W	2	R. Shannon Killarney	plankton	.01—.36	.08—1.60	65—480	40—220
* <i>A. brightwelli</i> (Gosse)	H	27	Castlebar	lake	.02—.05	.54—.71	275	115
Family Testudinellidae								
<i>Testudinella clypeata</i> (Müller)	G, H	6, 12, 27	Louisburgh Westport	lagoon, tidal-pools, marsh drain, bog, pond	—	—	—	—
<i>T. parva bidentata</i> (Tern.)	H	27	Castlebar Knappagh	—	—	—	—	—

**Asplanchnella* of some workers including Berzins in *Limnofauna Europaea* (1967).

	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
<i>T. patina</i> (Herm.)	G, H, R	6, 12, 16, 27	Achill Clare I. Westport Roundstone	quarry, pond, lakes	—	—	—	—
<i>T. patina intermedia</i> Anderson	R	27	Achill	—	—	—	—	—
<i>T. truncata</i> (Gosse)	H	27	Westport	bog pool	—	—	—	—
<i>Pompholyx complanata</i> Gosse	R	27	Achill	—	—	—	—	—
<i>P. sulcata</i> Hudson	W & W	16	Mawneen L. Corrib	lakes	.01—.13	.16—2.38	225—470	90—235
<i>Hexartha mira</i> (Hudson)	H	27	Westport	bog	—	—	—	—
<i>Filinia longiseta</i> (Ehr.)	A, D & L, H, S & G, W & W	2, 23, 27	Achill Westport Castlebar L. Neagh L. Ennell Killarney	bog-pools, plankton	.01—.56	.01—.46	90—480	40—250
<i>F. passa</i> (Müller)	H	27	Westport	quarry	—	—	—	—
Family Microcodinae								
<i>Microcodon clavus</i> Ehr.	G, H, R	12, 27	Achill Clare I. Castlebar	lake, bog, drain	—	—	—	—
Family Floscularidae								
<i>Limnias ceratophylli</i> Schr.	H	27	Westport	mill-pond	—	—	—	—
<i>L. melicerta</i> Weisse	G, H	12, 27	Knappagh	marsh, drain	—	—	—	—
<i>Floscularia conifera</i> (Hudson)	G, H, R	12, 27	Clare I.	bog-pools, pond	—	—	—	—
<i>F. janus</i> (Hudson)	H, R	27	Achill Knappagh	in lakes on vegetation	—	—	—	—
<i>F. ringens</i> (Linn.)	G, H	12, 16, 27	Roundstone	ponds, quarry	—	—	—	—
<i>Sinantherina socialis</i> (Linn.)	H	12, 27	Castlebar Knappagh Roundstone	in lake on vegetation	—	—	—	—
<i>Ptygura brachiata</i> (Hudson)	G	12	—	pond	—	—	—	—
<i>P. brevis</i> (Rousselet)	H	27	Knappagh	in lake on vegetation	—	—	—	—
<i>P. crystallina</i> (Ehr.)	G, H, R	6, 12, 27	Achill Knappagh	lakes, bogs, ponds	—	—	—	—

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	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
<i>P. longicornis</i> (Davis)	G, H	12, 27	Westport	lakes, pools, marsh-drain	—	—	—	—
<i>P. longipes</i> (Wills)	H	27	Westport Castlebar	bog-pools	—	—	—	—
<i>P. melicerta</i> (Ehr.)	H	27	Westport	bog-pools	—	—	—	—
<i>P. mucicola</i> (Kell.)	H	27	Westport	—	—	—	—	—
<i>P. pilula</i> (Cubitt)	H, R	27	Achill Westport	bog pools	—	—	—	—
<i>P. velata</i> (Gosse)	G, H	12, 27	Castlebar lakes area	bog, pond	—	—	—	—
Family Conochilidae								
* <i>Conochiloides dossuarius</i> (Hudson)	A	2	Killarney	plankton	.01—.17	.08—.46	90—150	40—50
<i>Conochilus hippocrepis</i> (Schr.)	H, S & G	2	Achill Westport Castlebar	marsh-pools, lakes	.01—.36	.23—1.60	65—480	45—220
<i>C. unicornis</i> Rousselet	A, H, R, S & G, W & W	2, 16, 27	Achill Clare I. Knappagh L. Corrib Killarney	plankton	.01—.56	.08—2.38	65—480	40—235
Family Collothecidae								
<i>Stephanoceros fimbriatus</i> (Goldfuss)	H	27	Knappagh	lake	—	—	—	—
<i>Collotheca algicola</i> (Hudson)	G, H	12, 21, 27	Knappagh	lakes, ponds, bogs, canal	—	—	—	—
<i>C. ambigua</i> (Hudson)	G, H	6, 12, 27	Westport	ponds, bogs, drains	—	—	—	—
<i>C. annulata</i> (Hood)	H	27	Westport	bog pools, vegetation	—	—	—	—
<i>C. calva</i> (Hudson)	H	27	Knappagh Castlebar	in lakes on vegetation	—	—	—	—
<i>C. campanulata</i> Dobie	G, H	12, 27	—	in bogs and ponds on vegetation	—	—	—	—
<i>C. campanulata longicauda</i> (Hudson)	H	27	Westport	in bog-pools on vegetation	—	—	—	—

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	Collector	Vice-county	Locality	Habitat	Ortho-phosphate	Nitrate	Conduc-tivity	Hardness
<i>C. coronetta</i> (Cubitt)	H	27	Westport Knappagh	in lakes on vegetation	—	—	—	—
<i>C. cyclops</i> (Cubitt)	H	27	Knappagh	in lakes on vegetation	—	—	—	—
<i>C. mutabilis</i> (Hudson)	R	27	Achill	—	—	—	—	—
<i>C. ornata</i> (Ehr.)	G ₂ H	12, 27	Westport	in bogs, drains, ponds, and lakes on vegetation	—	—	—	—
<i>C. ornata cornuta</i> (Dobie)	G ₂ H	12, 27	Westport Castlebar lakes area	marshes, ponds, bogs, drain	—	—	—	—

DISCUSSION

From October, 1971 to June, 1975, the author was engaged in a team project studying eutrophication and senescence in the lakes of the Killarney Valley. The Rotifera are important indicator species in studies of this nature and therefore, an essential basic requirement was a review of the available Irish literature. It was evident from an early stage that there was a paucity of data and although work on this group had been carried out since 1849, records were both sporadic and isolated for Ireland. This paper reviews the present state of knowledge, updates the synonyms and combines all the known lists of Irish rotifers.

The records show that 315 species of Rotatoria are known to occur in Ireland. A total of 71 species belong to the Digononta (Bdelloidea). The remainder are members of the Monogononta. Of this total, 57 species are listed in the Appendix. These are mentioned by Berzins in *Limnofauna Europaea* (1967) but no reference and no ecological data are available in the literature.

It has not been possible to draw firm conclusions on the distribution of the different species since large areas of the country have yet to be sampled. Chemical data was available for only a few species and as can be seen from the ranges of concentration the ubiquitous species such as *Keratella cochlearis* are found over a wide range of concentrations, others such as *Proales theodora* have been found only in one lake sampled which has a narrow concentration range. However, further chemical and biological sampling could widen the known distribution of many of the less common species. The common rotifer species found in the Killarney lakes are discussed in detail by White and Horkan (Anon., 1976).

Already, three species, new to Ireland, have been recorded in Killarney: *Conochiloides dossuarius*, *Keratella hiemalis* and *Polyarthra remata*. *K. hiemalis* is also a new record for the British Isles. It is possible that previous collectors may have mistaken this species for *K. quadrata*, although Carlin (1943) clearly shows the differences between the two.

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APPENDIX

List extracted from *Limnofauna Europaea* (Berzins, 1967) for which no definite source of reference could be traced.

<i>Habrotrocha munda</i> Bryce	<i>S. rostrum</i> (Schmarda)
<i>H. visa</i> Donn.	<i>Bryceela tenella</i> (Bryce)
<i>Adineta oculata</i> (Milne)	<i>Dorystoma caudata</i> (Bilf.)
<i>A. vaga major</i> Bryce	<i>Aspelta clydona</i> Harring and Myers
<i>A. vaga minor</i> Bryce	<i>Cephalodella crassipes</i> (Lord)
<i>Bradyscela clauda</i> (Bryce)	<i>C. derbyi</i> (Dix-Nutt. and Fres.)
<i>Mniobia circinata</i> (Murr.)	<i>Trichocerca marina</i> (Daday)
<i>Rotaria citrina</i> (Ehr.)	<i>T. pusilla</i> (Jenn.)
<i>R. elongata</i> (Weber)	<i>T. weberi</i> (Jenn.)
<i>R. neptunoidea</i> Harr.	<i>Paratrichocerca cylindrica</i> (Imhof)
<i>Dissotrocha aculeata tuberculata</i> Gosse	<i>Elosa worrallii</i> Lord
<i>Brachionus quadricornis brevispinus</i> (Ehr.)	<i>Ascomorpha saltans</i> Bartsch
<i>Keratella cochlearis hispida</i> (Laut.)	<i>Synchaeta cecilia</i> Rousselet
<i>K. irregularis</i> (Laut.)	<i>S. grimpei</i> Rem.
<i>Lophocharis salpina</i> Ehr.	<i>S. gyrina</i> Hood
<i>Mytilina musica</i> (Perty)	<i>S. littoralis</i> Rousselet
<i>Euchlanis dilatata lucksiana</i> Haver	<i>S. triophthalma</i> Laut.
<i>E. incisa</i> Carl.	<i>S. vorax</i> Rousselet
<i>E. meneta</i> Myers	<i>Wierzejskiella elongata</i> (Glascott)
<i>E. parva</i> Rousselet	<i>Enentrum rousseleti</i> (Lie-Pett.)
<i>Eosphora gibba</i> Ehr.	<i>Asplanchna sieboldi</i> (Leyd.)
<i>Proales globulifera</i> (Haver)	<i>Asplanchnopus multiceps</i> (Schr.)
<i>P. reinhardti</i> (Ehr.)	<i>Testudinella patina mucronata</i> (Gosse)
<i>Lecane clostocerca</i> (Schmarda)	<i>Filinia melicerta</i> (Ehr.)
<i>L. ungulata</i> (Gosse)	<i>Beauchampia crucigera</i> (Dutr.)
<i>Lepadella acuminata</i> Ehr.	(Schoch)
<i>L. oblonga</i> (Ehr.)	<i>C. libera</i> (Zach.)
<i>Colurella uncinata bicuspidata</i> (Ehr.)	<i>C. pelagica</i> (Rousselet)
<i>Squatinella leydigi</i> (Zach.)	

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