

Can the grey literature help us understand the decline and extinction of the Near Threatened Eurasian otter *Lutra lutra* in Latium, central Italy?

CORRADO BATTISTI, GIOVANNI AMORI, FRANCESCO M. ANGELICI
LUCA LUISELLI and MARZIO ZAPPAROLI

Appendix Records of the Eurasian otter *Lutra lutra* in Latium and adjacent areas of Tuscany and Umbria (Fig. 1). Records are arranged by geographical subunit (of which there are 23; see text for further details), with period, locality information, source, any relevant remarks and the level of reliability (H₁, L₁) and geographical accuracy (H₂, L₂; see text for details).

Period	Locality (by province) ¹	Source	Remarks ²	Reliability (1) / accuracy (2)
1, Tuscany (GR): River Fiora (1 [H₁: 0, H₂: 1, L₁: 0, L₂: 0])				
1984–1985	River Fiora, at confluence with River Lente near bridge of road between Pitigliano & Montemerano	Cenni, 1986	Undetermined locality	H2
2001	Tuscany stretch of River Fiora	Various authors, 2001	Locally extinct	
2, Latium (VT): basin of Fiora, Tafone & Arrone rivers (Maremma laziale) (29 [H₁: 19, H₂: 6, L₁: 3, L₂: 1])				
Early 20th century	River Arrone	Lepri, 1911	Undetermined locality	H2
1965–1970	Basin of River Fiora	Arcà, 1986	Presumed widely diffuse in 2nd half of 1960s	H2
1968–1972	Canino: Timone stream (River Fiora)	Cagnolaro et al., 1975	Stable	H1
1968–1972	Ischia di Castro: River Fiora	Cagnolaro et al., 1975	Stable	H1
1976–1977	Canino, Monte Romano, Tuscania	Pavan & Mazzoldi, 1983	Undetermined locality	L2
1982	River Arrone (1 site)	MacDonald & Mason, 1983	Undetermined locality	H2
1982	Basin of River Fiora	MacDonald & Mason, 1983	Undetermined locality	H2
1982–1983	River Fiora, downstream of Ponte San Pietro	M.A. Bologna, pers. comm., 2009	Tracks	H1
1983–1984	River Fiora (4 sites)	Arcà, 1986	Undetermined locality	H1
1983–1984	River Olpeta, 5 km from confluence with River Fiora (1 site)	Arcà, 1986	Undetermined locality	H1
1983–1984	River Tafone, small artificial lake c. 7 km from River Fiora (Vulci area)	Arcà, 1986	Signs of presence but presumed unstable population	H1
1983–1984	River Timone, 3 km from confluence with River Fiora	Arcà, 1986	Signs of presence but presumed unstable population	H1
1984–1985	River Fiora (4 sites)	Reggiani et al., 1986	Undetermined locality	H2

Appendix (Continued)

Period	Locality (by province) ¹	Source	Remarks ²	Reliability (1) / accuracy (2)
1984–1985	River Olpeta (1 site)	Reggiani et al., 1986	Undetermined locality	H1
1984–1985	River Tafone	Reggiani et al., 1986	Presence unconfirmed	H1
1984–1985	River Timone	Reggiani et al., 1986	Presence unconfirmed	H1
1984–1985	River Fiora, 1 km from mouth	Arcà, 1986	At least 3 pairs	H1
1985	River Fiora, Ponte San Pietro	M.A. Bologna, pers. comm., 2009	1 individual	H1
1987 (spring–summer)	River Fiora, Ponte San Pietro & in confluence of River Paternale	Coop. Lynx, 1986	Faeces, tracks	H1
1987	River Fiora	Arcà & Prigioni, 1987	Faeces, tracks	H1
1987	River Olpeta, near ruins of Castro	Various authors, 2004	1 individual	H1
Early 1990	River Fiora & its confluentes (Lente & Timone rivers)	Celletti, 1996	Probably present	H1
1990 (1st half)	Basin of River Fiora	Celletti & Papi, 2003	Undetermined locality	H2
1994–1995	River Olpeta	Various authors, 2004	Possible signs of presence: food remains (crabs), faeces	L1
1996	River Olpeta	Celletti, 1996	1 individual	H1
2000	River Olpeta	Papi & Biselli, 2007	Faeces	H1
2001–2002	River Fiora basin	Various authors, 2001	Presence unconfirmed, probably extinct in Latium	
2002	Confluence of River Paternale with River Fiora	Various authors, 2004	Possible signs of presence: food remains (fish)	L1
2003	Vulci, along a tributary of River Fiora	Regione Lazio, 2004	Undetermined locality	H1
2004 (Mar.–July)	River Olpeta, between 2 km N of Ponte San Pietro & Vulci WWF Reserve	Various authors, 2004	Presence unconfirmed	
2004 (?), 2005–2006 (?)	River Fiora, near Vulci	Papi & Biselli, 2007	Record lacks details	L1
3, Latium (VT): waterbodies of Saline di Tarquinia (Maremma laziale) (3 [H1: 1, H2: 2, L1: 0, L2: 0])				
Early 20th century	Corneto (=Tarquinia)	Ghigi, 1911	Undetermined locality	H2
1968–1972	Tarquinia–Montalto di Castro: River Marta–River Fiora–River Arrone–River Tafone–River Mignone	Cagnolaro et al., 1975	Decreasing	H2
1981	Saline di Tarquinia	Reggiani et al., 1986	Presence unconfirmed	
1987 (autumn)	Drainage channels near Tarquinia	Celletti, 1996	1 pair	H1

Appendix (Continued)

Period	Locality (by province) ¹	Source	Remarks ²	Reliability (1) / accuracy (2)
4, Latium (VT): waterbodies of Mount Vulsini, Lake Bolsena & basin of River Marta (4 [H1: 1, H2: 0, L1: 0, L2: 3])				
1960	Low stretch of River Marta	Celletti, 1996	Undetermined locality	H1
1968–1972	Bolsena–San Lorenzo Nuovo: Ponticello River–Lake Bolsena	Cagnolaro et al., 1975	Stable	L2
1968–1972	Marta–Tuscania: River Marta–River Arrome	Cagnolaro et al., 1975	Stable	L2
1968–1972	Sutri: River Valdiano–River Rotoli	Cagnolaro et al., 1975	Undetermined locality; status unreported	L2
1981	From Lake Bolsena to mouth of River Marta	Reggiani et al., 1986	Presence unconfirmed	
5, Latium (VT): waterbodies of Mounts Cimini & Vicani (10 [H1: 5, H2: 2, L1: 1, L2: 2])				
Early 20th century	Soriano (in Cimino)	Ghigi, 1911	Undetermined locality	H2
Early 20th century	Lake Vico	Lepri, 1911	Undetermined locality	H1
Early 20th century	Viterbo	Ghigi, 1911	Undetermined locality	H2
1920	Lake Vico	F. Scarfò, pers. comm., 2009	1 individual (killed)	H1
1965	Lake Vico	Angelici, 1989	1 individual (killed)	H1
1968–1972	Ronciglione–Caprarola: Lake Vico	Cagnolaro et al., 1975	Stable	H1
1976–1977	Viterbo	Pavan & Mazzoldi, 1983	Undetermined locality	L2
1977	Mounts Cimin & Vicani	Pratesi & Tassi, 1977: 52	Undetermined locality	L2
1983 (Mar.)	Lake Vico	Angelici, 1989	1 individual	H1
1983	Lake Vico: Pantanacce	E. Piattella, pers. comm., 2009	1 individual	L1
6, Latium (VT): Mount Rufeno, River Paglia (4 [H1: 2, H2: 1, L1: 1, L2: 0])				
1968–1972	Acquapendente: River Paglia	Cagnolaro et al., 1975	Stable	H1
Until 1970	Basin of River Paglia	Forti & Papi, 2004	Undetermined locality	H2
1972	River Stridolone (confluent of River Paglia)	Mariani & Invernì, 1986	1 individual (killed)	H1
1976–1977	Acquapendente, Proceno	Pavan & Mazzoldi, 1983	Undetermined locality	L1
1981	Mount Rufeno	Reggiani et al., 1986	Presence unconfirmed	
7, Umbria (TR): River Paglia (5 [H1: 4, H2: 1, L1: 0, L2: 0])				
1970	River Chiani downstream of River Elmo (basin of River Paglia?)	Mariani & Invernì, 1986	4–5 individuals (killed)	H1
1970	Umbria, basin of River Paglia	Mariani & Invernì, 1986	Reported some individuals killed	H2
1973–1974	River Migliari (basin of River Paglia?)	Mariani & Invernì, 1986	1 individual (killed)	H1

Appendix (Continued)

Period	Locality (by province) ¹	Source	Remarks ²	Reliability (1) / accuracy (2)
1976–1977	River Chiani downstream of confluence with River Bagno (basin of River Paggia?)	Mariani & Invernì, 1986	1 individual (killed)	H1
1981 (summer)	Parrano (basin of River Paggia?)	Mariani & Invernì, 1986	1 individual (killed)	H1
8, Latium (VT): River Tevere, stretch in Province of Viterbo (3 [H1: 0, H2: 0, L1: 0, L2: 3])				
1968–1972	Civitella D'Agliano: River Tevere	Cagnolaro et al., 1975	Stable	L2
1968–1972	Vitorchiano–Bomarzo: River Vezza	Cagnolaro et al., 1975	Decreasing	L2
1976–1977	Bomarzo, Civita Castellana, Corchiano, Fabrica di Roma, Faleria, Orte, Vitorchiano	Pavan & Mazzoldi, 1983	Undetermined locality	L2
1981	River Tevere & its confluents: River Chiaro & T. Vezza, River Vicanio, Treia (right side of River Tevere)	Reggiani et al., 1986	Presence unconfirmed	
9, Latium (VT/RM): Treia & Tevere rivers (3 [H1: 0, H2: 0, L1: 0, L2: 3])				
1968–1972	Calcata–Civita Castellana–Faleria: River Treia–River Filetto	Cagnolaro et al., 1975	Decreasing	L2
1968–1972	Nepi: River Grottabella	Cagnolaro et al., 1975	Undetermined locality; status unreported	L2
1976–1977	Calcata, Castel Sant'Elia, Nepi	Pavan & Mazzoldi, 1983	Undetermined locality	L2
1981	River Treia–River Tevere	Reggiani et al., 1986	Presence unconfirmed	
10, Latium (RM): basin of River Mignone, Tolfa streams & water bodies of northern coastal area (20 [H1: 10, H2: 9, L1: 0, L2: 1])				
Early 20th century	River Mignone	Lepri, 1911	Record lacks details	H2
1956 (Dec.)	Macchiatoronda (Regional Nature Reserve)	S. Muratore, V. Orchi & D. D'Amelia, pers. comms, 2009	1 male (killed)	H1
1968–1972	Blera: River Mignone– River Vesca	Cagnolaro et al., 1975	Stable	H1
1968–1972	Tolfa: River Mignone– River Lenta–River Verginese	Cagnolaro et al., 1975	Decreasing	H2
1969	Tolfa area	Contoli, 1977	1 skin	H2
Until 1970	River Mignone	Mantero (undated)	Record lacks details	H2
1970 (1st half)	Tolfa area	Contoli, 1977	Record lacks details	H2
1970 (1st half)	River Mignone	Calò & Verucci, 1993	Record lacks details	H2
1974	River Mignone	Celletti, 1996	1 individual (killed)	H2
1976–1977	Barbarano Romano, Blera, Canale Monterano, Veiano	Pavan & Mazzoldi, 1983	Record lacks details	L2
1971–1980	River Mignone	Contoli & Spada, 1973	Record lacks details	H2

Appendix (Continued)

Period	Locality (by province) ¹	Source	Remarks ²	Reliability (1) / accuracy (2)
c. 1979	Civitella Cesi (abandoned railway station; bridge on River Mignone)	River Fochetti, pers. comm., 2009	Faeces	H1
1981	Marturanum Regional Nature Reserve	Reggiani et al., 1986	Presence unconfirmed	
1981	River Mignone	Reggiani et al., 1986	Presence unconfirmed	
From 1981	River Mignone	Celletti, 1996	Locally extinct	
1982	River Fiume	Angelici, 2005	1 individual	H1
1985	Tolfa area	Calò & Verucci, 1993	Locally extinct	
1986	River Mignone	Angelici, 2005	1 individual (killed)	H1
1987	River Fiume	Angelici, 2005	Faeces	H1
1987–1988	River Mignone	River Fochetti, pers. comm., 2009	Tracks	H2
1989–1990	River Mignone, 1 km from Luni, near road bridge	M. Ghigi, pers. comm., 2009	Record lacks details	H1
1990	River Vesca	Angelici, 2005	Tracks, food remains	H1
1993	?	Calò & Verucci, 1993	Recently extinct	
1999	Civitella Cesi: River Mignone, near abandoned railway station	S. Celletti, pers. comm., 2009	1 individual	H1
11, Latium (RM): Lake Bracciano area (2 [H1: 0, H2: 1, L1: 0, L2: 1])				
1968–1972	Barbarano Romano– Bassano Romano– Oriolo Romano– Veiano: River Mignone–River San Giuliano	Cagnolaro et al., 1975	Decreasing	H2
1976–1977	Anguillara Sabazia, Bassano Romano, Bracciano, Oriolo Romano	Pavan & Mazzoldi, 1983	Record lacks details	L2
12, Latium (RM): Rome, Agro Romano & adjacent subcoastal areas (22 [H1: 12, H2: 8, L1: 0, L2: 2])				
Undated	Castelporziano	Tinelli & Tinelli, 1986	Diffused along Basso Tevere; present until few years previously	H2
Undated	Agro Romano	Gippoliti & Amori, 2006	1 specimen from Maccarese (MCZRM) (probably same as cited in Tinelli & Tinelli, 1986)	
1704	Agro Romano	Various authors, 1995	Record lacks details	H2
19th century (1st half)	Paludi Ostiensi	Bonaparte, 1832–1841	Record lacks details	H1
19th century (1st half)	River Aniene	Bonaparte, 1832–1841	(Inaccurate locality tentatively referred to this area)	H2
19th century (1st half)	River Tevere (sometimes inside walls of Rome)	Bonaparte, 1832–1841	Record lacks details	H1

Appendix (Continued)

Period	Locality (by province) ¹	Source	Remarks ²	Reliability (1) / accuracy (2)
1887 (Nov.)	Maccarese	Tinelli & Tinelli, 1986	1 specimen in MCZRM (probably same as cited by Reggiani et al., 1986)	H1
1894 (Nov.)	River Aniene	Tinelli & Tinelli, 1986	2 cubs (MCZRM)	H2
Early 20th century	Marshes of Maccarese & Fiumicino	Lepri, 1911	Not rare in Maccarese & Fiumicino wetlands	H1
Early 20th century	Agro Romano	Lepri, 1911	Occur in many rivers of Campagna Romana	H2
Early 20th century	River Tevere	Lepri, 1911	Record lacks details	H2
1911–1920	Unknown locality	Knotterus-Meyer, 1924	Record lacks details	H2
End of 1930	Pineta di Astura	Scheibler, 1939–1957	Tracks	H1
1952	Castelporziano, confluence of Canale del Figurone with Canale Palocco (La Focetta), near sea	Tinelli & Tinelli, 1986	2 individuals	H1
1955	Tenuta di Castelporziano, comprensorio di bonifica Palocco	Cagnolaro et al., 1975	Record lacks details	H1
1960	Castelporziano, Canale di Capoccata	Tinelli & Tinelli, 1986	1 individual	H1
1960	Castelporziano, loc. Focetta & Dogane River	Tinelli & Tinelli, 1986	Record lacks details	H1
1960	Castelporziano	Tinelli & Tinelli, 1986	Locally extinct	
1965	Castelporziano, Piscina del Pappagallo	Tinelli & Tinelli, 1986	1 individual	H1
1965	Castelporziano, beach of Tor Paterno, near Piscina del Pappagallo	Tinelli & Tinelli, 1986	1 individual	H1
1968–1972	Capena–Castelnuovo di Porto–Fiano Romano: F. Tevere	Cagnolaro et al., 1975	Decreasing	H2
1972	Nazzano, valley of River Tevere, confluence with River Farfa	Pratesi & Tassi, 1977: 85	1 male	H1
Until 1977	Casal Palocco	Tinelli & Tinelli, 1986	1 den	L2
1976–1977	Capena, Castelnuovo di Porto, Fiano Romano, Formello, Riano	Pavan & Mazzoldi, 1983	Record lacks details	L2
13, Latium (RM): waterbodies of Mount Simbruini, high valley of River Aniene (4 [H1: 2, H2: 1, L1: 0, L2: 1])				
Early 20th century	River Aniene	Lepri, 1911	Record lacks details	H2
1970	Filettino: River Aniene–Lake Pertuso	Cagnolaro et al., 1975	Decreasing	H1
1970	Trevi nel Lazio: River Aniene	Cagnolaro et al., 1975	Decreasing	H1
1976–1977	Bellegra	Pavan & Mazzoldi, 1983	Record lacks details	L2
1980	High valley of River Aniene	Calò & Verucci, 1993	Locally extinct	

Appendix (Continued)

Period	Locality (by province) ¹	Source	Remarks ²	Reliability (1) / accuracy (2)
14, Lazio (RM): waterbodies of Mounts Lucretili & Low Sabina (1 [H1: 0, H2: 0, L1: 0, L2: 1])				
1976–1977	Montelibretti, Palombara Sabina	Pavan & Mazzoldi, 1983	Record lacks details	L2
15, Lazio (LT): waterbodies of Pontina plain/Circeo area/coast of southern Lazio (17 [H1: 10, H2: 6, L1: 0, L2: 1])				
Early 20th century	Cisterna di Roma	Ghigi, 1911	Record lacks details	H2
Early 20th century	Pontine marshes (Districts of Velletri & Terracina), lagoons of Fogliano, Paola & Caprolace	Lepri, 1911	Abundant	H1
Early 20th century	San Felice Circeo	Ghigi, 1911	Record lacks details	H2
Early 20th century	Terracina	Ghigi, 1911	Record lacks details	H2
1926 (Mar.)	Lake Fogliano	Scheibler, 1939–1957	Tracks; 1 individual (killed)	H1
1932	Lake Caprolace	Scheibler, 1939–1957	1 individual (killed)	H1
1938	Pontinian lakes	Scheibler, 1939–1957	2 individuals (killed)	H2
1965	Sabaudia–San Felice Circeo: Lake Paola	Cagnolaro et al., 1975	Record lacks details; status unreported	H1
1968–1972	Aprilia: River Acqua Solfurea–River Acqua Cetosa	Cagnolaro et al., 1975	Decreasing	H1
1970	Fondi: Canale Portella–Lake Fondi– Lagoon of Lauria	Cagnolaro et al., 1975	Record lacks details; status unreported	H2
1970	Pontinia–Terracina: River Amaseno– Canale della Botte	Cagnolaro et al., 1975	Decreasing	H2
1970	Sezze: River Uffente– Canale della Schiazza	Cagnolaro et al., 1975	Record lacks details; status unreported	H1
End of 1970–beginning of 1980 (?)	Lake Sabaudia	Biondi, 1985	Record lacks details	H1
1974	Ninfa Protection Oasis (neighbourhood)	Cassola, 1976	1 individual (killed)	H1
1975 (Sep.)	Ninfa Protection Oasis (neighbourhood)	Wayre, 1976	Tracks: ‘...the area [is] large enough to support only one breeding pair’, ‘...no chance of spreading out into the surrounding countryside’	H1
1976–1977	Fondi, Sabadia	Pavan & Mazzoldi, 1983	Record lacks details	L2
1982	Coastal lakes in Province of Latina	Canu & Penteriani, 1986	No signs of presence	
1983 (1985?)	Province of Latina	MacDonald & Mason, 1983	No signs of presence	
1985 (Feb., Dec.)	Ninfa Protection Oasis (neighbourhood)	Canu & Penteriani, 1986	1 individual	H1
1986 (Jan.)	Ninfa Protection Oasis (neighbourhood)	Canu & Penteriani, 1986	No signs of presence	

Appendix (Continued)

Period	Locality (by province) ¹	Source	Remarks ²	Reliability (1) / accuracy (2)
16, Latiuum (LT/FR): waterbodies of Mount Ausoni–Aurunci (2 [H1: 0, H2: 1, L1: 0, L2: 1])				
1969	Castel Forte–Formia–Minturno–Santi Cosma & Damiano–Spigno Saturnia: River Garigliano	Cagnolaro et al., 1975	Record lacks details; status unreported	H2
17, Latiuum (FR): waterbodies of Mount Ernici (3 [H1: 0, H2: 3, L1: 0, L2: 0])				
19th century (1st half)	River Fibreno	Giustiniani, 1816	Abundant	H2
1960	Arpino–Broccostella–Fontechiari: River Fibreno	Cagnolaro et al., 1975	Record lacks details; status unreported	H2
1962	Collepardo	Cagnolaro et al., 1975	Record lacks details; status unreported	H2
1983	Province of Forsinone s.l.	MacDonald & Mason, 1983	No signs of presence	
1984–1985	Province of Forsinone s.l.	Canu & Penteriani, 1986	No signs of presence	
18, Latiuum (FR): River Melfa (3 [H1: 1, H2: 2, L1: 0, L2: 0])				
1945	Roccasecca–Colle San Magno: River Melfa	Cagnolaro et al., 1975	Record lacks details; status unreported	H2
1950	Picinisco–San Biagio Saracinisco: River Melfa	Cagnolaro et al., 1975	Record lacks details; status unreported	H2
1965	River Melfa	Canu & Penteriani, 1986	1 individual	H1
19, Latiuum (RM): waterbodies of Mount Lepini (2 [H1: 1, H2: 0, L1: 0, L2: 1])				
1910	Cori–Norma–Rocca Massima: Rive Teppiar	Cagnolaro et al., 1975	Record lacks details; status unreported	H1
1976–1977	Segni	Pavan & Mazzoldi, 1983	Record lacks details	L2
20, Latiuum (RM/FR): waterbodies of Mount Prenestini, River Sacco, T. Fiumicino-Aniene (4 [H1: 1, H2: 2, L1: 0, L2: 1])				
Early 20th century	Palestrina	Ghigi, 1911	(Probably refers to neighbouring rivers (e.g. T. Fiumicino, River Sacco), according to Angelici & Riga, 2001)	H2
1930	Artena–Colleferro–Gavignano–Segni: River Sacco	Cagnolaro et al., 1975	Record lacks details; status unreported	H2
Until end of 1960	River Sacco: River Fiumicino	Angelici & Riga, 2001	Record lacks details	H1
1976–1977	Cave, Rocca Santo Stefano, San Vito Romano	Pavan & Mazzoldi, 1983	Record lacks details	L2
1983	Province of Forsinone s.l.	MacDonald & Mason, 1983	No signs of presence	

Appendix (Continued)

Period	Locality (by province) ¹	Source	Remarks ²	Reliability (1) / accuracy (2)
1984–1985	Province of Frosinone s.l.	Canu & Penteriani, 1986	No signs of presence	
21, Latium (RI): Mount Sabini, River Farfa (1 [H1: 0, H2: 0, L1: 0, L2: 1])				
1970 (end of)	Mount Sabini: River Farfa	Pratesi & Tassi, 1977: 85	Record lacks details	L2
22, Latium (RI): waterbodies of Mount Reatini (12 [H1: 9, H2: 0, L1: 0, L2: 3])				
1940 (winter)	River Salto, Petrella	Cammerini, 1986	1 individual	H1
1960 (Mar.)	Lake Ripa Sottile	Cammerini, 1986	1 female & 2 cubs (killed)	H1
1960 (Sep.)	River Turano: Roccasinibalda	Cammerini, 1986	1 individual	H1
1960–1965	Lake Ripa Sottile	Cammerini, 1986	4 individuals (killed)	H1
1960–1970	River Velino, Piedifiume	Cammerini, 1986	Many observations & tracks	H1
1971–1973	Province of Rieti	Cagnolaro et al., 1975	No records reported	L2
1976–1977	Borgo Velino, Collevecchio, Fara in Sabina, Forano, Poggio Mirteto, Posta, Rieti, Rivodutri, Stimigliano, Turania	Pavan & Mazzoldi, 1983	Record lacks details	L2
End of 1970	San Vittorino plain	Pratesi & Tassi, 1977: 102	Nearly extinct	L2
1982 (Sep.)	River Velino, Montisola	Cammerini, 1986	1 adult	H1
Until 1982	River Salto, Petrella	Cammerini, 1986	Calls	H1
1983 (Oct.)	River Turano, ex Mola Napoleoni	Cammerini, 1986	1 individual	H1
1983 (Oct.)	River Velino: Ponte di Ferro near Rieti	Cammerini, 1986	1 individual	H1
1984–1985	Province of Rieti	Cammerini, 1986	No signs of presence	
23, Umbria (TR): Tevere River (6 [H1: 5, H2: 1, L1: 0, L2: 0])				
1956–1959	Lake Piediluco	F. Fraticelli, pers. comm., 2009	Record lacks details	H1
1960	Lake Alviano	Mariani & Invernì, 1986	1 individual (killed)	H1
1960	Lake Alviano: River Solvara (northern confluent on right side)	Mariani & Invernì, 1986	Some individuals	H1
1976–1977	Lake Piediluco: River Fuscello	Mariani & Invernì, 1986	1 individual (killed)	H1
1970	Lake Piediluco: along River Corno near Nortosce, along River Nera, near Sant'Anatolia di Narco & along stretch near Piedipaterno	Mariani & Imvernì, 1986	Calls	H1
Beginning of 1980	River Tevere: Umbrian stretch	Cassola, 1986	Record lacks details	H2

¹Administrative provinces: GR, Grosseto (Tuscany); FR, Frosinone; LT, Latina; RI, Rieti; RM, Rome; VT, Viterbo; TR, Terni (Umbria)²MCZRM, collection of the Museo Civico di Zoologia, Rome