

Table S1. Larval growth, survival, and sex of each *Neoleucopis* lineage (*N. kartliana* and *Neoleucopis* n. sp. B) designated to the eggs of the target (*M. hellenica*) or the non-target (*I. purchasi*) species.

Collection date	Food source	Lineage	Growth	Survival	Sex
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Female
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Female
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Female
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Female
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Female
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Female
10/5/2022	<i>M. hellenica</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Female
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Male
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	yes	Female
10/5/2022	<i>I. purchasi</i>	<i>Neoleucopis</i> n. sp. B	yes	no	
10/5/2022	<i>I. purchasi</i>	<i>N. kartliana</i>	yes	yes	Male
10/5/2022	<i>I. purchasi</i>	<i>N. kartliana</i>	yes	yes	Male
10/5/2022	<i>I. purchasi</i>	<i>N. kartliana</i>	yes	yes	Male
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Male
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Male
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female

14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Male
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	no	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Female
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Male
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	yes	yes	Male
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	no	yes	Male
14/4/2023	<i>M. hellenica</i>	<i>N. kartliana</i>	no	yes	Female
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	yes	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	yes	Male
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	yes	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	yes	Male
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	yes	Male
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	yes	no	
14/4/2023	<i>I. purchasi</i>	<i>N. kartliana</i>	no	no	

Table S2. Total number of *Neoleucopis* spp. larvae encountered on branch samples infested by the non-target (*I. purchasi*) and target species (*M. hellenica*) collected on two occasions in 2022.

Collection date	Plant host species	Scale insect species	Total number of scale ovisacs	Total number of <i>Neoleucopis</i> spp. larvae
13/4/2022	<i>Pittosporum tobira</i>	<i>Icerya purchasi</i>	30	0
13/4/2022	<i>Pinus brutia</i>	<i>Marchalina hellenica</i>	9	11
10/5/2022	<i>Pittosporum tobira</i>	<i>Icerya purchasi</i>	59	0
10/5/2022	<i>Pinus brutia</i>	<i>Marchalina hellenica</i>	15	14

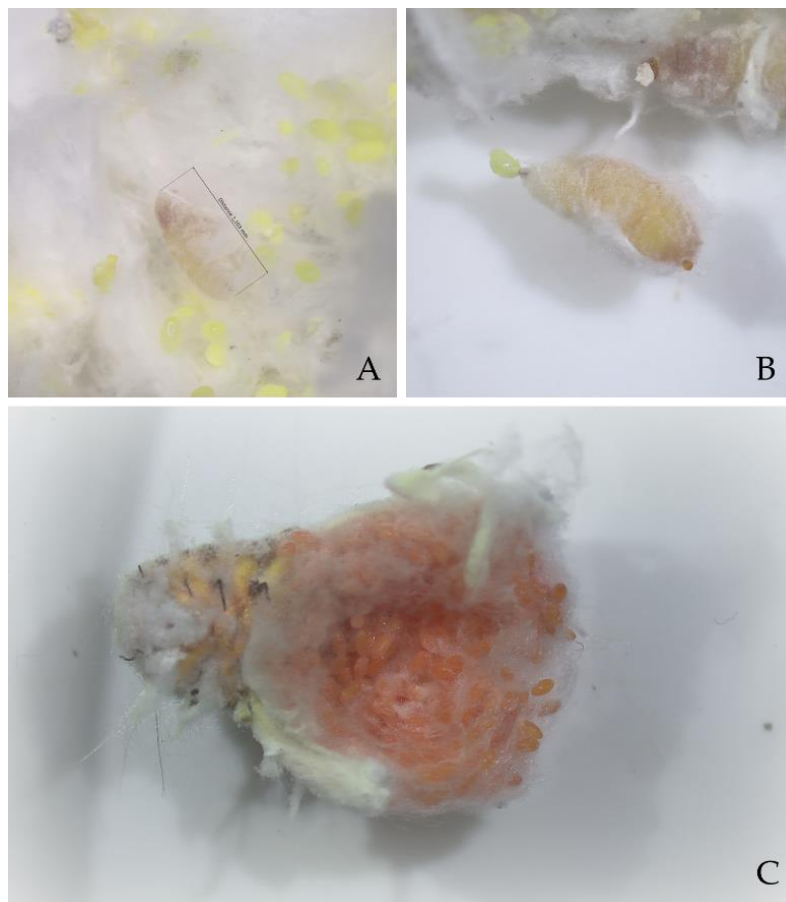


Figure S1. *Neoleucopis* spp. larvae encountered in *Marchalina hellenica* ovisacs (A) observed preying on the scale's eggs (B), and the absence of larvae in *Icerya purchasi* ovisacs (C).