

poorly defined by allozymes, although three clusters are indicated by PGM (*L. "tubero-interruptus"*), MDH-1 (*L. nigriceps*) and MDH-2 (*L. tuborum*). A closer examination of the co-variation in morphology and allozymes will, however, illuminate the situation substantially.

The left hand side of the cluster in Fig. 2 encircled by the dashed line includes the samples thought to be *L. unifasciatus* and *L. "tubero-interruptus"*. There is a more or less continuous morphological variation along axis 2 from typical *L. "tubero-interruptus"* (class 2) to typical *L. unifasciatus* (classes 5–6). PGM has a bimodal variation along this axis so that a large peak (around electromorph 3) is associated with the *L. unifasciatus* morphotype and a small peak (electromorphs 5–6) is associated with the *L. "tubero-interruptus"* morphotype (Table 1). Furthermore, there is an association between PGM 5–6 and the S allele in PGI and between PGM 1–3.9 and PGI F, MDH-1 S, and MDH-1 F. Thus we have *L. unifasciatus* (PGM 1–3.9, PGI M, MDH-1 S, M, F) in classes 3–6 and "*tubero-interruptus*" (PGM 5–6, PGM S, M, MDH-1 M) in classes 2–4 (see also Table 3). This leaves us with seven samples that are intermediate in the electromorph as well as the morphological variation (classes 3–4). The most likely interpretation is that they are hybrids, especially since all but one are from locality 7 where both parental species were abundant (Table 6). Queens of *L. unifasciatus* are large (alitrunk length \bar{x} = 1.32 mm, SD = 0.06, n = 86) while those of *L. "tubero-interruptus"* are small (\bar{x} = 1.15, SD = 0.02, n = 7). Queens of the hybrid colonies are either small (1.14, 1.14, 1.15) or large (1.34) suggesting that both sexes in both species are involved in hybridization, or that not all colonies were F₁ hybrids.

Table 1. Variation at the PGM, PGI and MDH-1 loci in the *Leptothorax unifasciatus* – "*tubero-interruptus*" complex

Based on this variation colonies are assigned to *L. "tubero-interruptus"* (TUIN, bold figures), *L. "tubero-interruptus"* × *unifasciatus* (TUIN × UNIF, italics) or *L. unifasciatus* (UNIF, standard). PC2 = second principal component axis (see Fig. 2)

PC2	Number of colonies PGM phenotype					PGI-S	PGI F, MDH-1 S and/or MDH-1 F	"Species"
	1-1.9	2-2.9	3-3.9	4-4.9	5-5.9			
2					2	p>0	p=0	
					2	p=0	p=0	
3			1	3	7	p>0	p=0	
			3	1	5	p=0	p=0	
		1	1			p=0	p>0	
4					1	p>0	p=0	
			1			p>0	p>0	
			7			p=0	p=0	
		1	7	1		p=0	p>0	
5-6	8	16	26			p=0	p=0	
	3	8	54			p=0	p>0	
Totals					10	p>0	p=0	TUIN
					7	p=0	p=0	TUIN
				3		p>0	p=0	TUIN × UNIF
				1		p=0	p=0	TUIN × UNIF
				1		p=0	p>0	TUIN × UNIF
			1			p>0	p=0	TUIN × UNIF
			1			p>0	p>0	TUIN × UNIF
			36			p=0	p=0	UNIF
			62			p=0	p>0	UNIF
		16				p=0	p=0	UNIF
		10				p=0	p>0	UNIF
	8					p=0	p=0	UNIF
	3					p=0	p>0	UNIF