The following supplement accompanies the article

Disease dynamics of red-spotted newts and their anuran prey in a montane pond community

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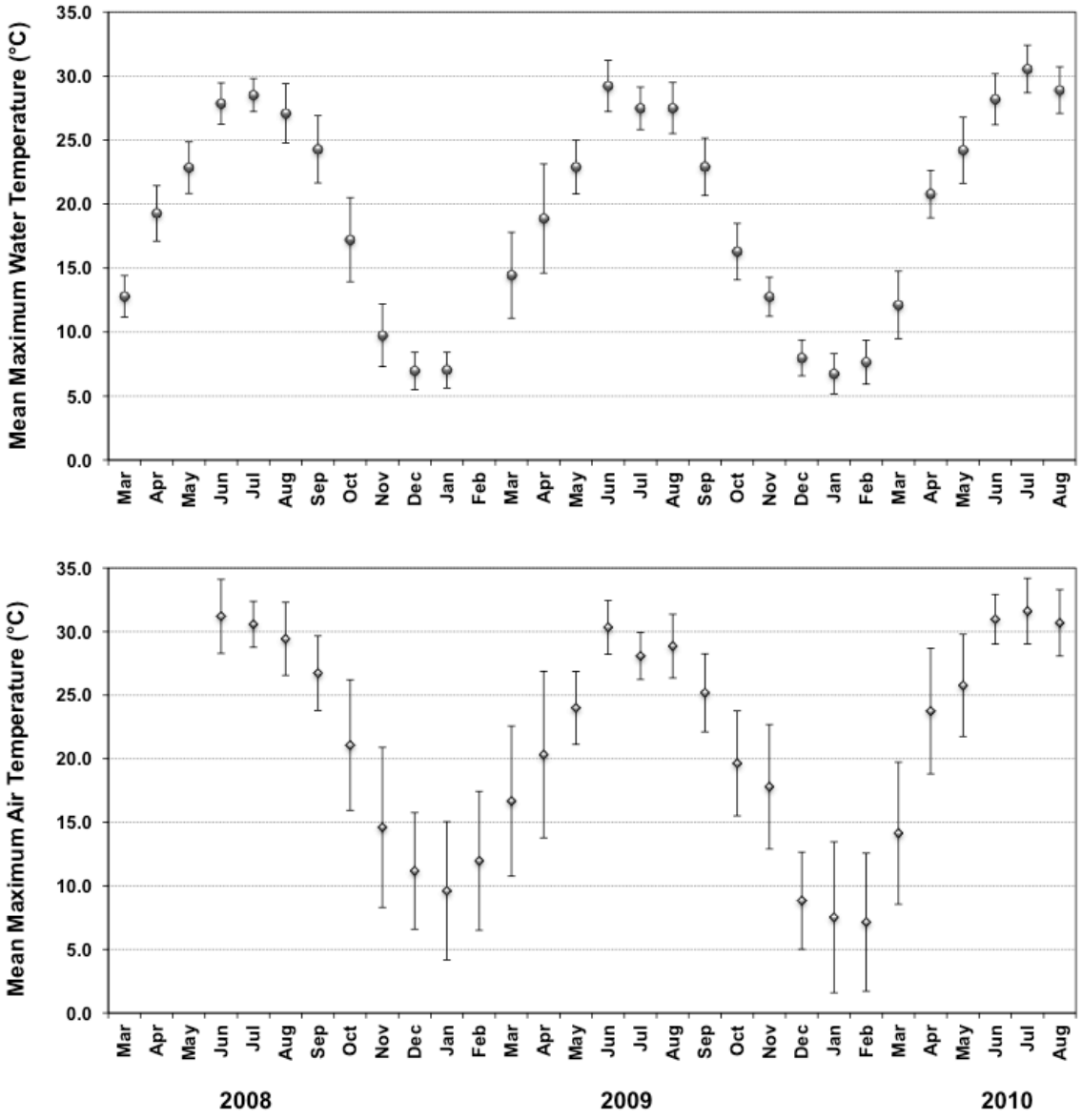

Figure S1. Mean daily maximum temperatures at the Charles H. Wharton Conservation Center in the upper Tallulah River Valley, Georgia, USA, averaged over each month from March 2008 through

August 2010. Error bars are ± 1 SD. Water temperature of the pond (*top graph*) was measured with a Tidbit V2 temperature logger (UTBI-001, Onset Computer Corp.) suspended from a float so it remained at a depth of approximately 14 cm below the surface. Water temperature data for February 2009 are missing due to equipment malfunction. Air temperature (*bottom graph*) was measured with a HOBO Pro V2 temperature/humidity logger (U23-001, Onset Computer Corp.) installed in mid-May 2008 in the adjacent open field. The HOBO Pro V2 logger was mounted on a post under a solar radiation shield at a height of approximately 1 m off the ground. Both loggers were set to record temperature at 30-min intervals.

Tables S1–S3. Details of methods used for disease screening of pond-breeding amphibians at the Charles H. Wharton Conservation Center in the upper Tallulah River Valley, Georgia, USA, in 2008–2010. Table S1 provides detailed methods used to determine prevalence of *Batrachochytrium dendrobatidis* (*Bd*) in larval amphibians (data presented in Table 2 of main article). Table S2 provides detailed methods used to screen adult and larval red-spotted newts for ranavirus (Rv; data presented in Table 1). Table S3 provides detailed methods used to screen larval anurans for Rv (data presented in Table 3). Each table includes information on degree of concordance between different diagnostic tests for samples tested by more than one method.

Table S1. Detailed methods for *Bd* prevalence data in Table 2; n (total) shown here matches sample sizes in Table 2. All individuals, regardless of species, were larvae caught by dip-netting. Subsets of individuals that were swabbed were sent to the Veterinary Diagnostic and Investigational Laboratory (VDIL; University of Georgia, USA) for more detailed diagnostics (e.g., PCR on tissues for *Bd* and Rv, histopathology).

LARGE LARVAE			Tissue samples (n)			Swabs (n)	Additional tissue testing by VDIL		Results of conv PCR on swabs (S) vs conv PCR on tissue (T):			
Species	Month	n (total)	convPCR	qPCR	both	convPCR	convPCR*	Explanation	S-/T-	S-/T+	S+/T-	S+/T+
L. catesbeianus	Apr-May 2008	2				2						
L. catesbeianus	Aug-Sep 2008	5				5						
L. catesbeianus	Oct-Nov 2008	45				45						
L. catesbeianus	Feb-Mar 2009	23				23	3	sent 3 of 23 to VDIL - gross clinical signs	3	0	0	0
L. catesbeianus	Jun-Jul 2009	48				48						
L. catesbeianus	Aug-Sep 2009	24				24	20	sent 20 of 24 to VDIL - random sample	19	1	0	0
L. catesbeianus	Apr-May 2010	25	8			17	11	sent 11 of 17 to VDIL - many had gross clinical signs	1	3	0	7
L. clamitans	Feb-Mar 2008	83				83						
L. clamitans	Apr-May 2008	92	13			79						
L. clamitans	Jun-Jul 2008	47				47						
L. clamitans	Aug-Sep 2008	27				27						
L. clamitans	Oct-Nov 2008	46				46	2	sent 2 of 46 to VDIL - gross clinical signs	2	0	0	0
L. clamitans	Feb-Mar 2009	44				44	2	sent 2 of 44 to VDIL - gross clinical signs	2	0	0	0
L. clamitans	Apr-May 2009	42			1 dead	41	11	sent 11 of 41 to VDIL - random sample	6	0	4	1
L. clamitans	Jun-Jul 2009	47				47						
L. clamitans	Aug-Sep 2009	29			2 dead	27	20	sent 20 of 27 to VDIL - random sample	20	0	0	0
L. clamitans	Apr-May 2010	41	13	21		7	7	sent 7 of 7 to VDIL - many had gross clinical signs	1	0	4	2
H. chrysoscelis	Jun 2009	24				24						
							*VDIL also tested some of these same tissue samples with qPCR; qPCR agreed with convPCR in all 56 cases	total:	54	4	8	10
									71%	**5%**	**11%**	**13%**

Overall concordance: **84%**

SMALL LARVAE			Tissue samples (n)			Results of conv PCR (con) vs. qPCR (q):			
Species	Month	n (total)	convPCR	qPCR	both	con-/q-	con-/q+	con+/q-	con+/q+
N. v. viridescens	Jun-Jul 2008	31	31						
N. v. viridescens	Aug-Sep 2008	22	22						
N. v. viridescens	Aug-Sep 2009	8			8	8	0	0	0
N. v. viridescens	Aug 2010	30		30					
L. sylvaticus	Feb-Mar 2008	85	85						
L. sylvaticus	Mar 2009	60	40		20	20	0	0	0
L. sylvaticus	Apr 2009	19	19						
H. chrysoscelis	May 2008	22	22						
H. chrysoscelis	Jul 2008	24	24						
H. chrysoscelis	Jul 2009	9			9	9	0	0	0
H. chrysoscelis	Jun 2010	24	24						
P. crucifer	Apr 2008	19	19						
					total:	37	0	0	0
						100%	**0%**	**0%**	**0%**

Overall concordance: **100%**

Table S2. Detailed methods for Rv detection data in Table 1. Adult newts *Notophthalmus v. viridescens* were caught by either dip-netting or minnow trapping; larval newts were caught by dip-netting. We tested tissue (either a tail-clip or organs) from every individual.

ADULT AND LARVAL NEWTS					Tissue samples (n)			Results of conv PCR (con) vs. qPCR (q)			
Species	Life Stage	Month	n (total)	Sample Type	convPCR	qPCR	both	**con-/q-**	**con-/q+**	**con+/q-**	**con+/q+**
N. v. viridescens	aquatic adult	Mar 2008	1	organs			1	0	0	0	1
N. v. viridescens	aquatic adult	May 2008	20	organs			20	7	11	0	2
N. v. viridescens	aquatic adult	Mar 2009	1	organs			1	0	0	0	1
N. v. viridescens	aquatic adult	May 2009	8	organs			8	7	1	0	0
N. v. viridescens	aquatic adult	Jun 2009	50	tail-clip		50					
N. v. viridescens	aquatic adult	Jul 2009	57	tail-clip	38	19					
N. v. viridescens	aquatic adult	Aug 2009	15	tail-clip			15	0	0	14	1
N. v. viridescens	aquatic adult	Mar 2010	111	tail-clip	101		10	5	0	3	2
N. v. viridescens	aquatic adult	Apr 2010	38	tail-clip	36		2	0	0	0	2
N. v. viridescens	aquatic adult	May 2010	47	tail-clip	47						
N. v. viridescens	aquatic adult	Jun 2010	7	tail-clip	7						
N. v. viridescens	aquatic adult	Jul 2010	10	tail-clip	10						
N. v. viridescens	aquatic adult	Aug 2010	4	tail-clip	4						
N. v. viridescens	aquatic adult	Sep 2010	11	tail-clip	11						
N. v. viridescens	larval	Oct 2008	1	organs			1	0	1	0	0
N. v. viridescens	larval	Aug 2009	8	organs			8	4	0	4	0
N. v. viridescens	larval	Aug 2010	30	tail-clip	30						
				total:				23	13	21	9
								35%	**20%**	**32%**	**14%**

Overall concordance: **48%**

Table S3. Detailed methods for Rv detection data in Table 3. All were larvae caught by dip-netting and PCR was run on tissue samples (liver and kidney). From Mar 2008-Mar 2010, we tested all samples with both conventional PCR and qPCR. From Apr-Aug 2010, we only tested samples with conventional PCR.

LARVAL RANIDS			**Tissue samples (n)**			**Results of conv PCR (con) vs. qPCR (q)**			
Species	Month	n (total)	convPCR	qPCR	both	**con-/q-**	**con-/q+**	**con+/q-**	**con+/q+**
L. catesbeianus	Feb 2009	3			3	3	0	0	0
L. catesbeianus	Aug 2009	20			20	20	0	0	0
L. catesbeianus	May 2010	24	24						
L. clamitans	May 2008	13			13	11	1	1	0
L. clamitans	Oct 2008	7			7	0	1	1	5
L. clamitans	Nov 2008	2			2	2	0	0	0
L. clamitans	Feb 2009	1			1	1	0	0	0
L. clamitans	Mar 2009	1			1	1	0	0	0
L. clamitans	May 2009	12			12	11	1	0	0
L. clamitans	Aug 2009	22			22	20	0	0	2
L. clamitans	Mar 2010	1			1	0	0	0	1
L. clamitans	Apr 2010	21	21						
L. clamitans	May 2010	20	20						
L. sylvaticus	Mar 2008	30			30	25	5	0	0
L. sylvaticus	Mar 2009	20			20	19	1	0	0
L. sylvaticus	Apr 2009	10			10	6	2	0	2
L. sylvaticus	May 2009	38			38	18	2	0	18
H. chrysoscelis	Jul 2009	9			9	1	1	0	7
H. chrysoscelis	Jun 2010	24	24						
					total:	138	14	2	35
						73%	**7%**	**1%**	**19%**

Overall concordance: **92%**