

ERATA

M.W. HIRSCH

Department of Mathematics
University of California
Berkeley, CA 94720-3840, USA

H.L. SMITH

Department of Mathematics and Statistics
Arizona State University
Tempe, AZ 85287-1804, USA

(Communicated by Aim Sciences)

ABSTRACT. It has recently been pointed out to us that there is an error in the proof of the assertion that the equilibrium set is finite in Theorem 1 of our paper *Asymptotically Stable Equilibria for Monotone Semiflows* which appeared in *Discrete and Continuous Dynamical Systems* Volume 14, 2006, page 385-398. This error also affects Theorem 2. As we are not able to correct the error, we must withdraw this assertion. Details are explained in this erata.

We are indebted to Norman Dancer for pointing out to us an error in the proof that the equilibrium set E is finite in Theorems 1 and 2 of our paper. The remaining assertions, namely that there exists an asymptotically stable equilibrium relative to the positive cone in Y and relative to the positive cone in the space of continuously differentiable functions are valid as stated. The proof of the latter assertion uses only the finiteness of a maximal totally ordered subset of E . The error in the proof of Theorem 1 concerning finiteness of E occurs in the penultimate paragraph where we mistakenly conclude that the hypotheses of Proposition 15 hold at accumulation point w . In fact, the spectral radius of the derivative of the map T at w may exceed one. Although finiteness of E cannot be concluded from our argument, the proof of Theorem 1 does show that every maximal totally ordered subset of E is finite, that the trivial fixed point is an isolated equilibrium, and that any accumulation point of E is unstable in the linear approximation.

E-mail address: mwhirsch@chorus.net; halsmith@asu.edu

2000 *Mathematics Subject Classification.* Primary: 37L15, 35K57.

Key words and phrases. order preserving semiflow, asymptotically stable equilibria, analytic semiflow, Kolmogorov competition system.

Supported by NSF Grant DMS 9700910.

Supported by NSF Grant DMS 0414270.