

# Чужие: генетика инвазивных популяций



Кононов А.В.

# “Идеальны сорняк”



Baker HG. 1965. Characteristics and modes of origin of weeds.

In *The Genetics of Colonizing Species*, ed. HG Baker, GL Stebbins,  
pp. 147–69. New York: Academic. 588 pp.

Baker HG. 1974. The evolution of weeds. *Annu. Rev. Ecol. Syst.* 5:1–24

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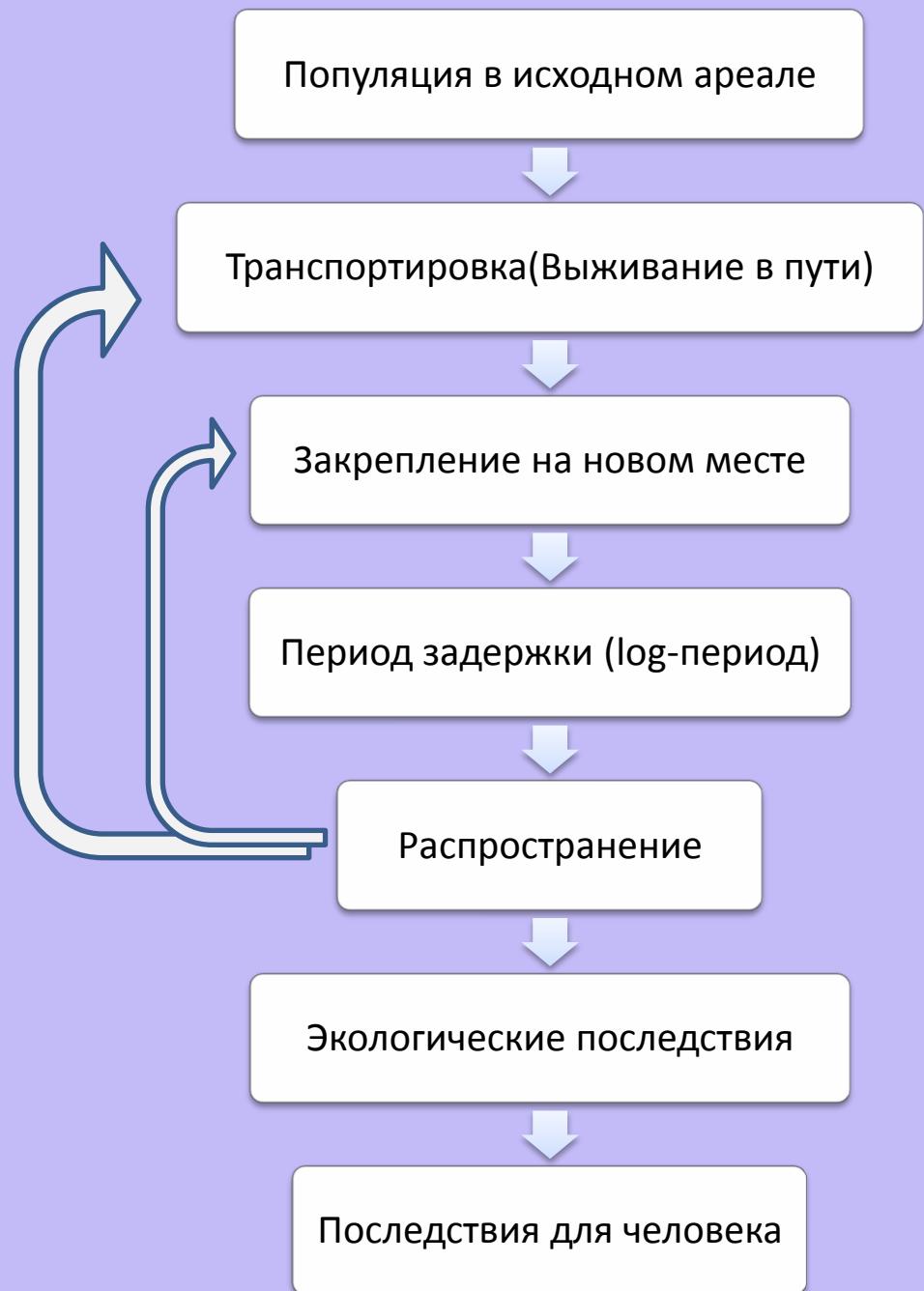


Baker HG. 1965. Characteristics and modes of origin of weeds. In *The Genetics of Colonizing Species*, ed. HG Baker, GL Stebbins, pp. 147–69. New York: Academic. 588 pp.  
Baker HG. 1974. The evolution of weeds. *Annu. Rev. Ecol. Syst.* 5:1–24



Newsome AE, Noble IR. 1986. Ecological and physiological characters of invading species. In *Ecology of Biological Invasions*, ed. RH Groves, JJ Burdon, pp. 1–20. Cambridge: Cambridge Univ. Press. 166 pp

# “Стадии инвазии”



THE POPULATION BIOLOGY OF  
INVASIVE SPECIES

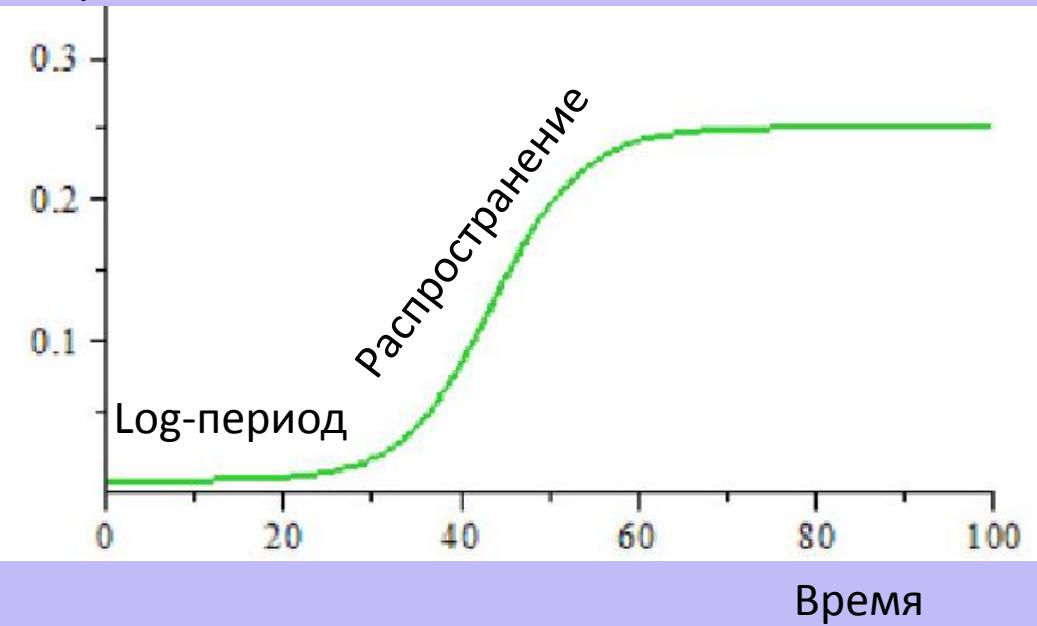
Ann K. Sakai et al. Annu. Rev. Ecol.  
Syst. 2001. 32:305–32

# “Стадии инвазии”

Популяция в исходном ареале

## Кривая инвазии

Плотность  
популяции



Транспортировка(Выживание в пути)

Закрепление на новом месте

Период задержки (log-период)

Распространение

Экологические последствия

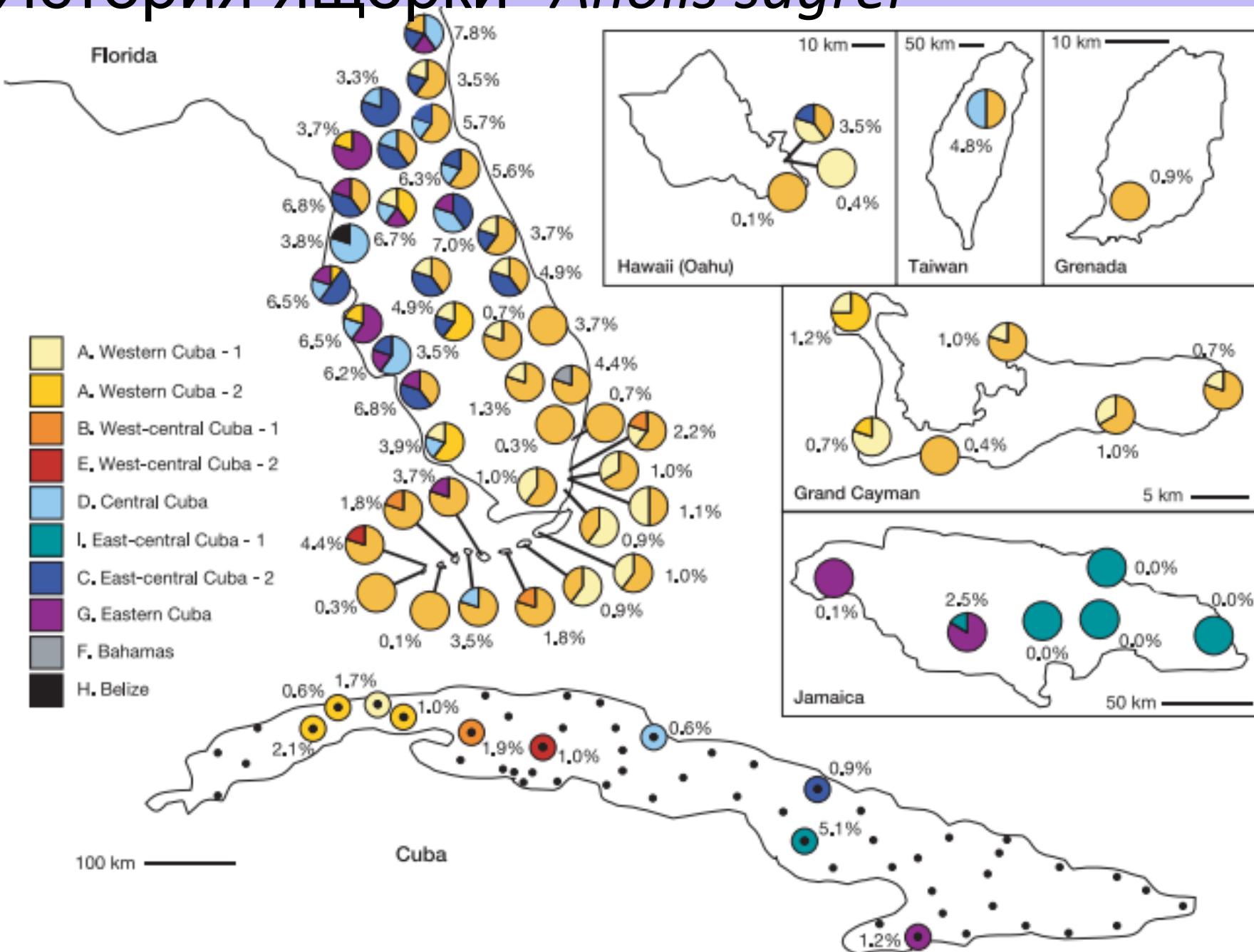
Последствия для человека

# “История ящерки” *Anolis sagrei*

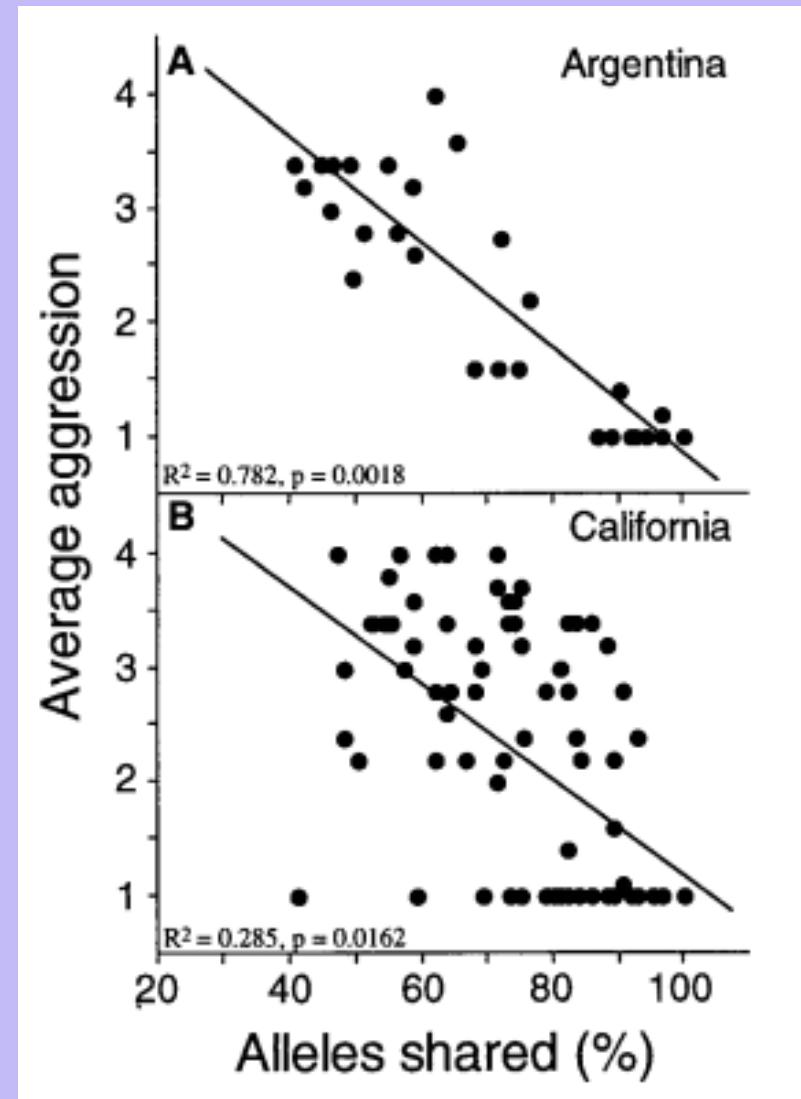


Genetic variation increases during biological invasion by a Cuban lizard Jason J. Kolbe et al.  
NATURE, VOL 431, 9 SEPTEMBER 2004 , [www.nature.com/nature]

# “История ящерки” *Anolis sagrei*



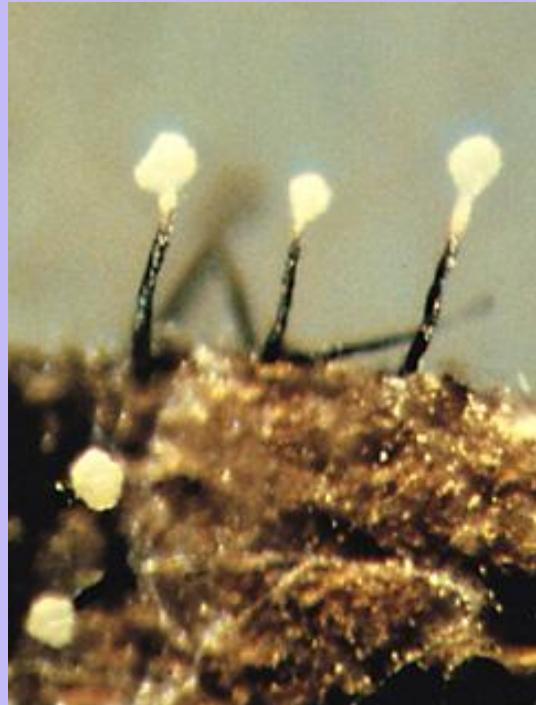
# “История муравейника” *Anolis sagrei*



Reduced genetic variation and the success of an invasive species Neil D. Tsutsui, Andrew V. Suarez, David A. Holway, and Ted J. Case, PNAS 5948–5953 May 23, 2000, vol. 97 no. 11

# “История жука с грибами”

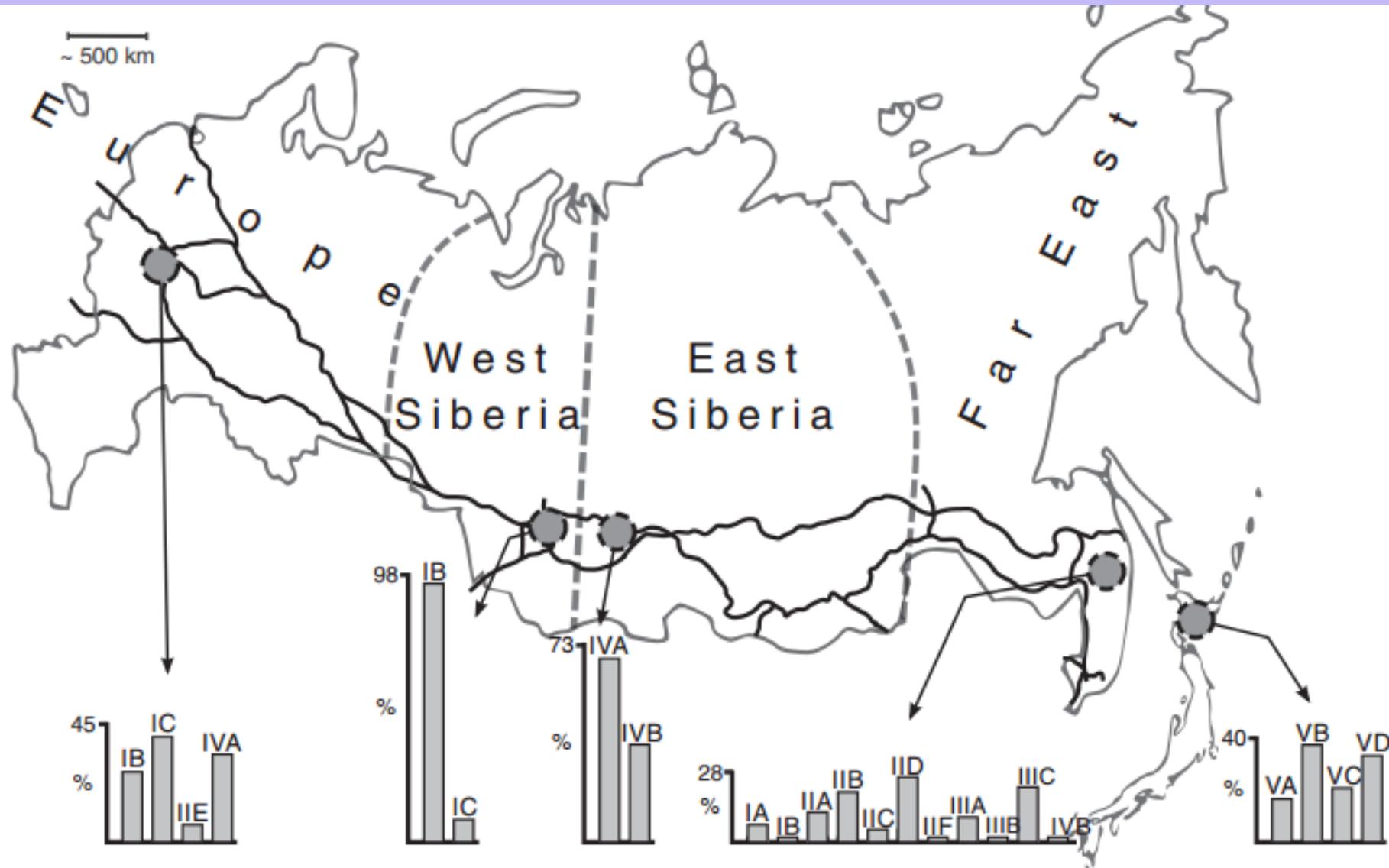
## *Polygraphus proximus*



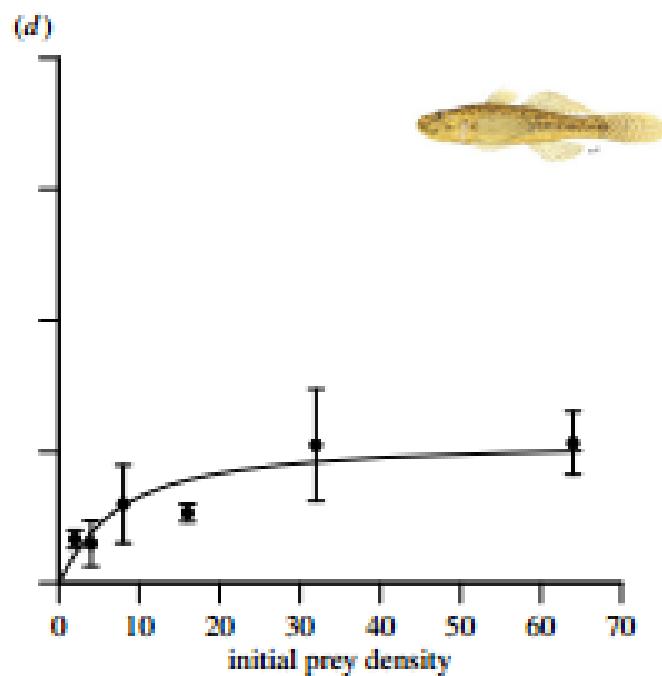
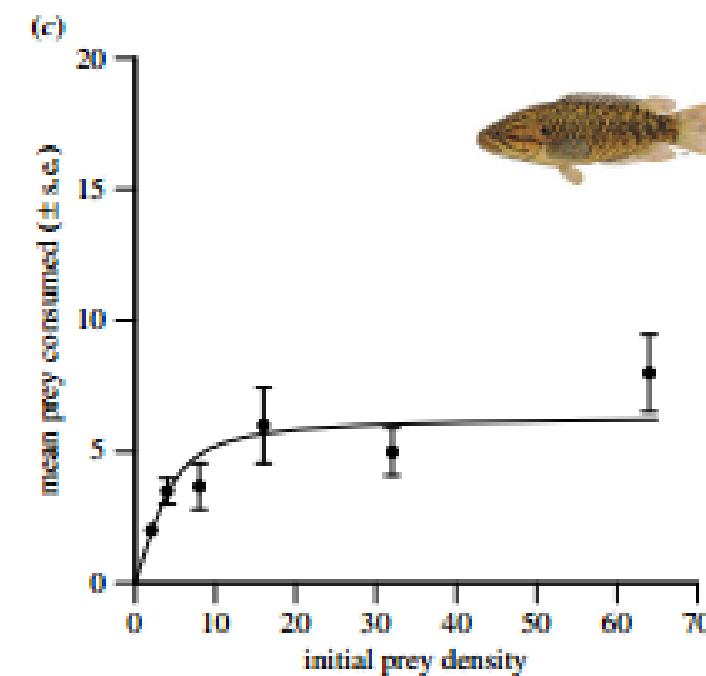
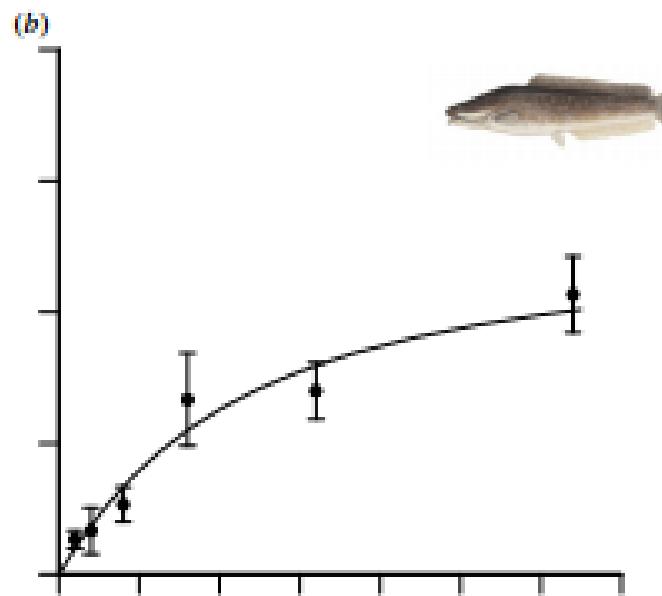
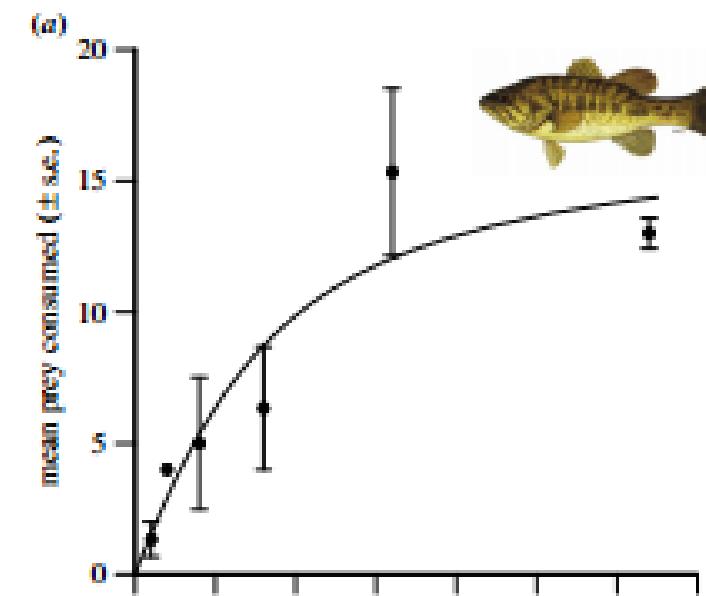
Genetic diversity of aboriginal and invasive populations of four-eyed fir bark beetle  
*Polygraphus proximus* Blandford (Coleoptera, Curculionidae, Scolytinae) Alexandr Kononov, Kirill Ustyantsev, Alexandr Blinov, Victor Fet and Yuri N. Baranchikov, Agricultural and Forest Entomology (2016), DOI: 10.1111/afe.12161

# “История жука с грибами”

## *Polygraphus proximus*



# Моделирование инвазивных процессов



Existing and emerging high impact invasive species are characterized by higher functional responses than natives Mhairi E. Alexander, Jaimie T. A. Dick, Olaf L. F. Weyl, Tamara B. Robinson and David M. Richardson iol. Lett.10: 20130946 [http://rsbl.royalsocietypublishing.org/]

# Моделирование инвазивных процессов

*Global Ecology and Biogeography, (Global Ecol. Biogeogr.) (2014) 23, 1157–1166*

ECOLOGICAL  
SOUNDING

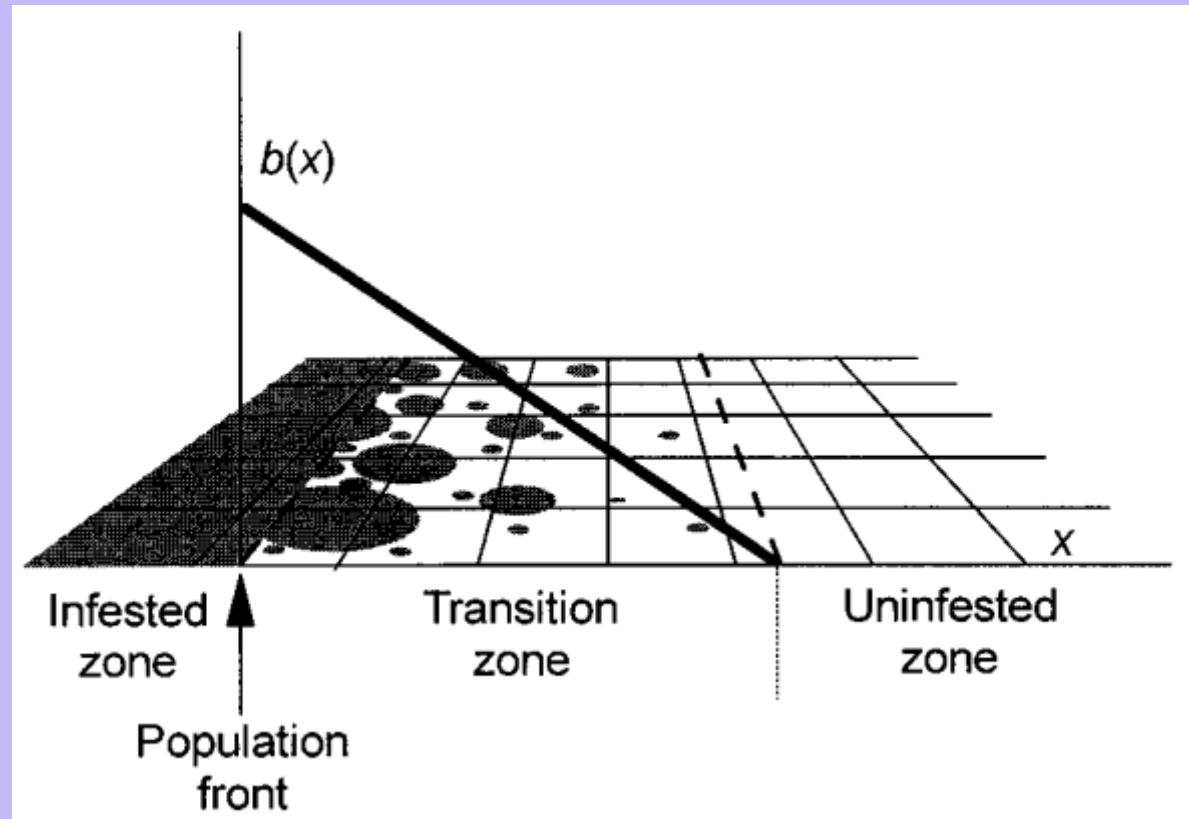


## The imbalance of nature: revisiting a Darwinian framework for invasion biology

Jason D. Fridley<sup>1\*</sup> and Dov F. Sax<sup>2</sup>

The imbalance of nature: revisiting a Darwinian framework for invasion biology Jason D. Fridley and Dov F. Sax, *Global Ecology and Biogeography, (Global Ecol. Biogeogr.) (2014) 23, 1157–1166*

# Моделирование инвазивных процессов



MODEL OF SLOWING THE SPREAD OF GYPSY MOTH (LEPIDOPTERA: LYMANTRIIDAE) WITH A BARRIER ZONE

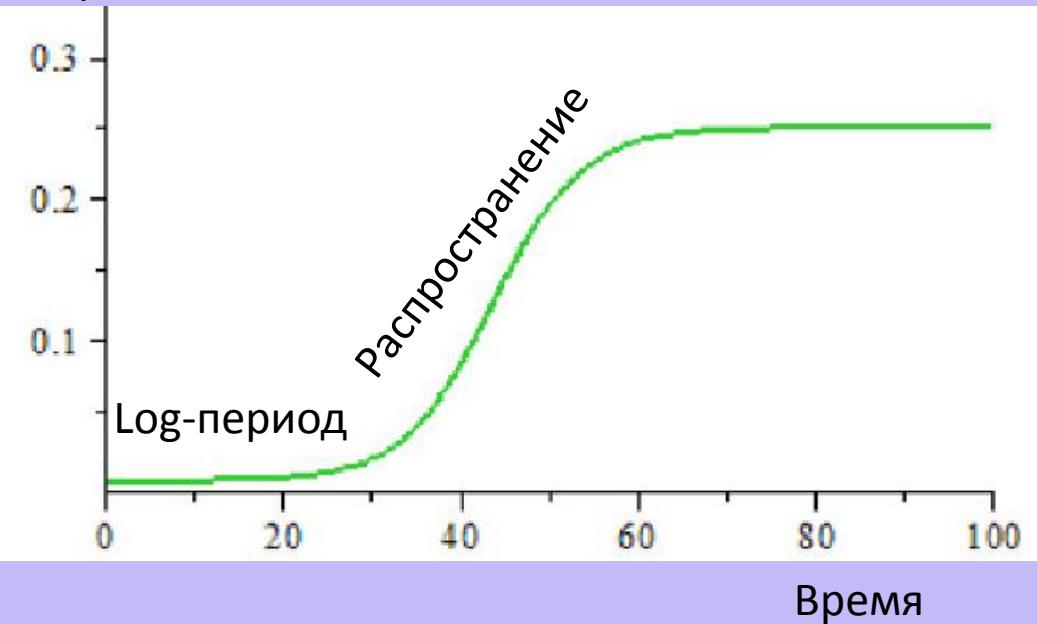
ALEXEI A. SHAROV<sup>1</sup> AND ANDREW M. LIEBHOLD  
Ecological Applications, 8(4), 1998, pp. 1170–1179

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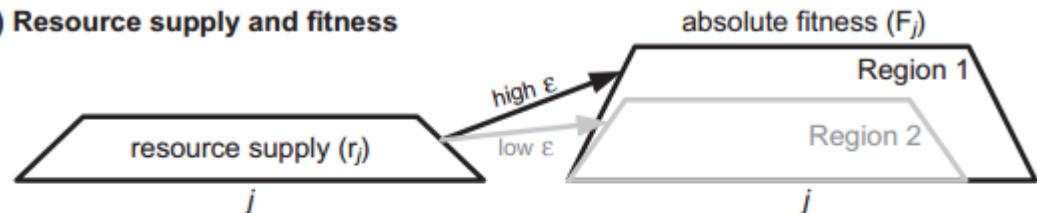
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### a) Resource supply and fitness



### b) Resource-use tradeoffs



### c) Invasion potential

