THE UNIVERSITY OF MELBOURNE

Biosecurity at the System-scale:

What's it worth?

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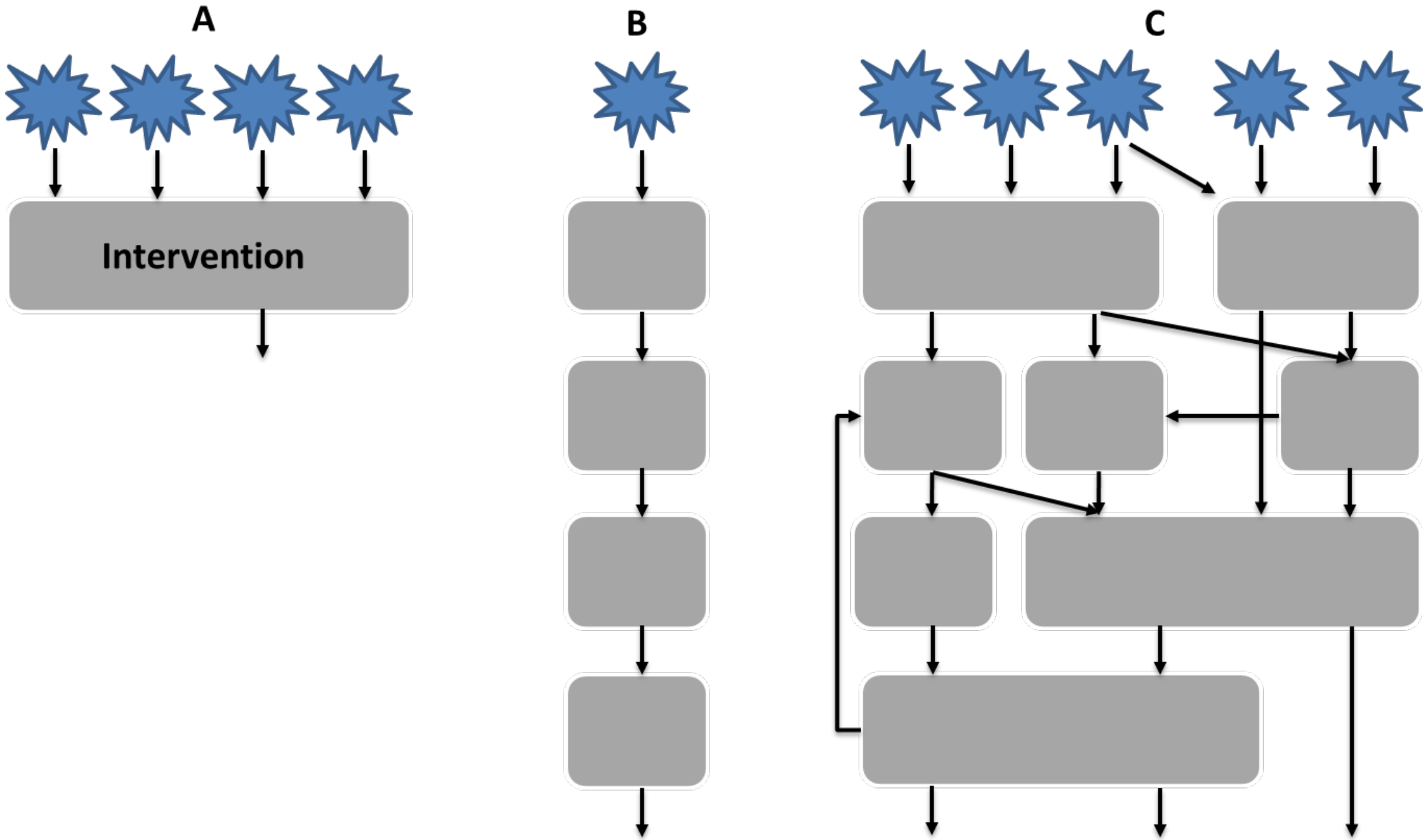
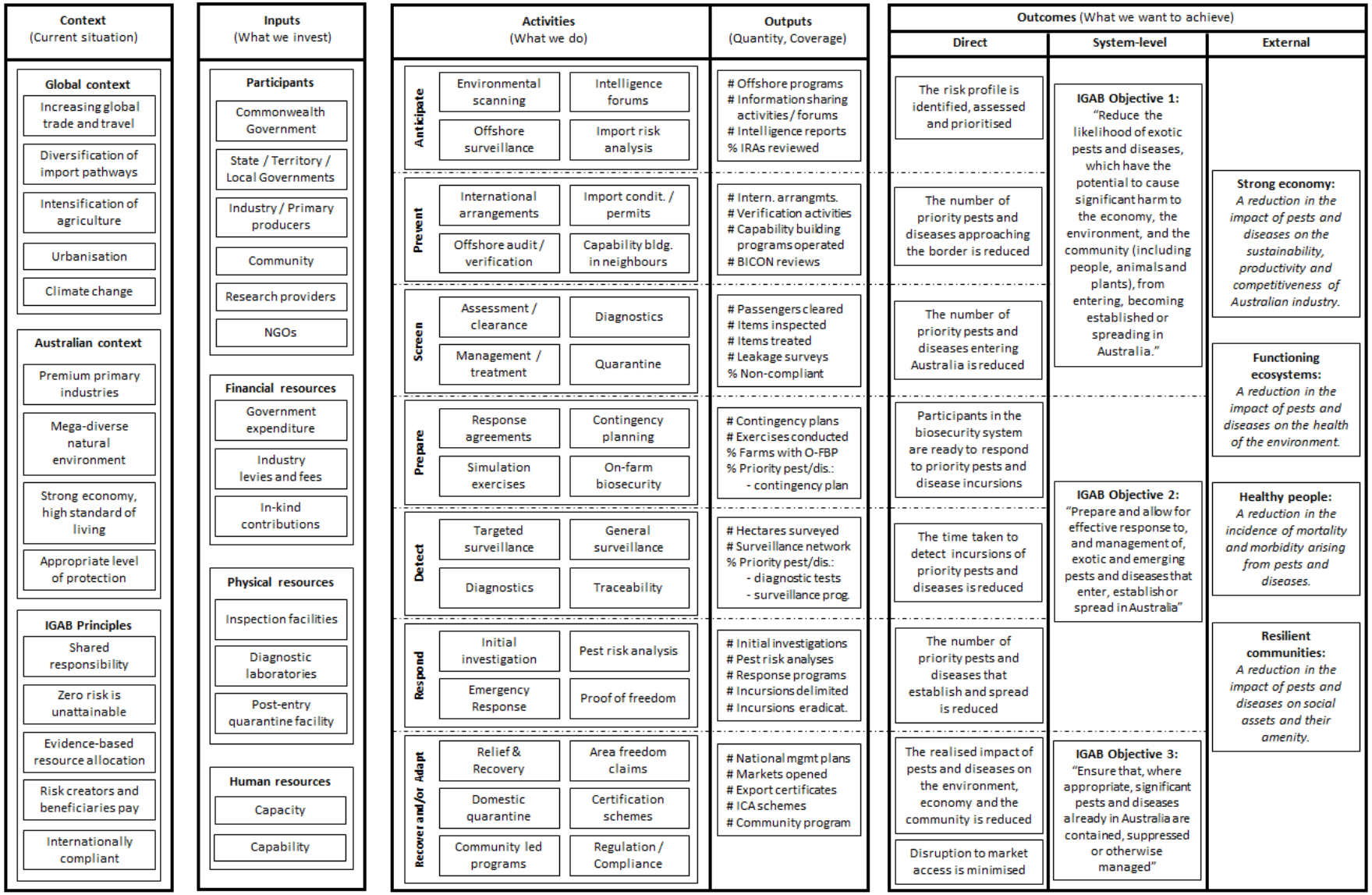
Biosecurity

'Biosecurity is the management of the risk of pests and disease entering, emerging, establishing or spreading in Australia and causing harm to animal, plant or human health, the economy, the environment and the community.'

Photo: Victorian Government (http://www.agriculture.vic.gov.au)



Goal: "The goal of a national biosecurity system is to minimise the impact of pests and diseases on Australia's economy, environment and the community, with resources targeted to manage risk effectively across the continuum, while facilitating trade and the movement of animals, plants, people, goods, vectors and vessels to, from and within Australia" (IGAB, 2012)



Ref: Dodd *et al.*, (2017)

Cost: $1,000,000,000

Benefit: ?

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Crop Protection

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Predicted economic impact of black Sigatoka on the Australian banana industry

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Baseline 'Consequence Measure the Torres Strait Islands Path Papaya Fruit Fly, Citrus Ca

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October 2015

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ABARES

Potential socio-economic impacts of an outbreak of foot-and-mouth disease in Australia

Benjamin Buetre, Santhi Wicks, Heleen Kruger, Niki Millist, Alasebu Yainshet, Graeme Garner, Alixaandrea Duncan, Ali Abdalla, Charlene Trestrail, Marco Hatt, Lyndal-Joy Thompson and Michael Symes

Research by the Australian Bureau of Agricultural and Resource Economics and Sciences

Research report 13.11
October 2013

for Australian Weed Management #8
nical Series

e economic impact of weeds in Australia

Jack Sinden, Randall Jones, Susie Hester,
een Odom, Cheryl Kalisch, Rosemary James
Oscar Cacho

CRC Weed management

Australian Government
Australian Bureau of Agricultural and Resource Economics

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effects of a potential incursion

abare eReport 04.4

ABARE report for Plant Health Australia

Lisa Elliston, Alasebu Yainshet and Ray Hinde

January 2004

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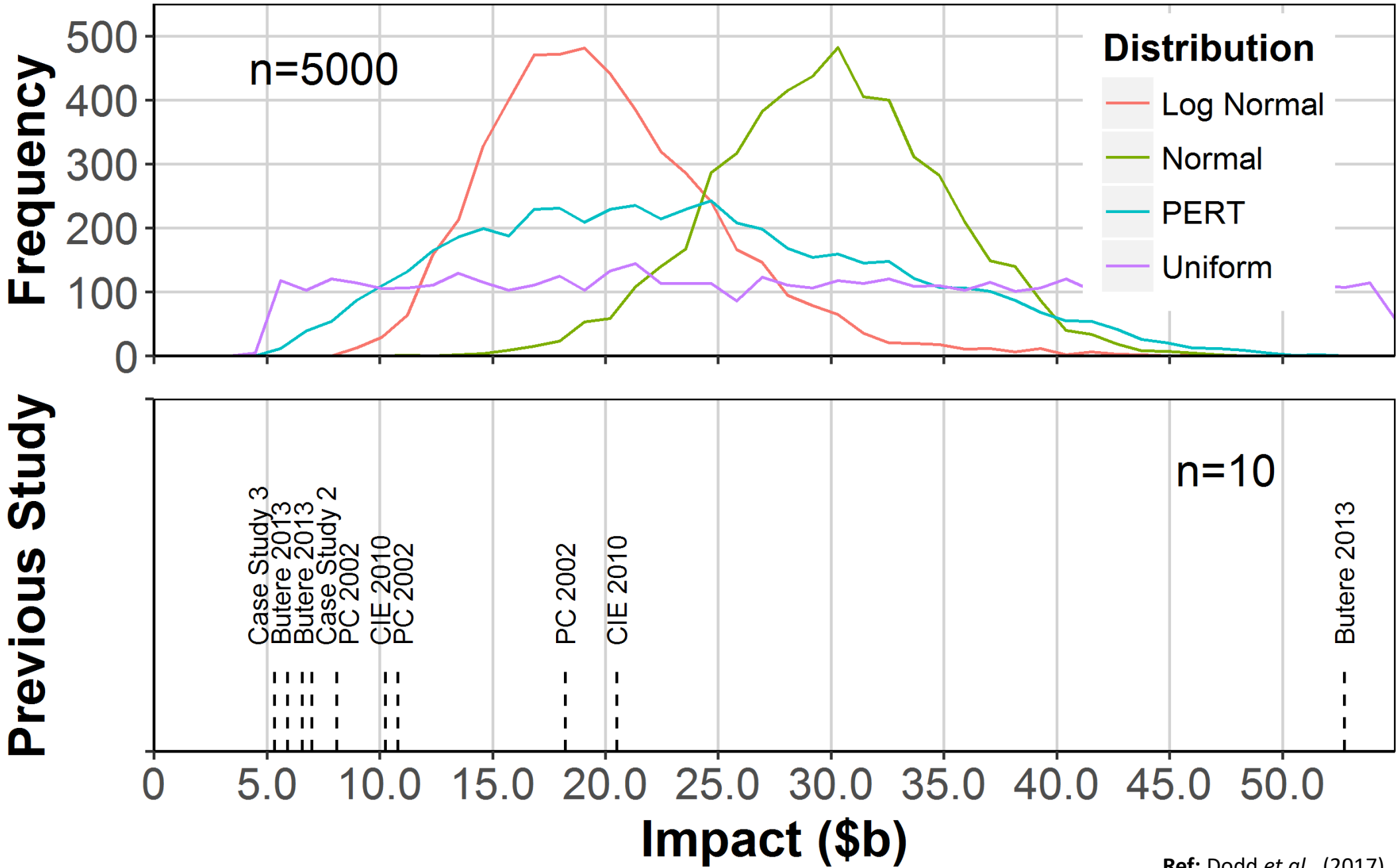

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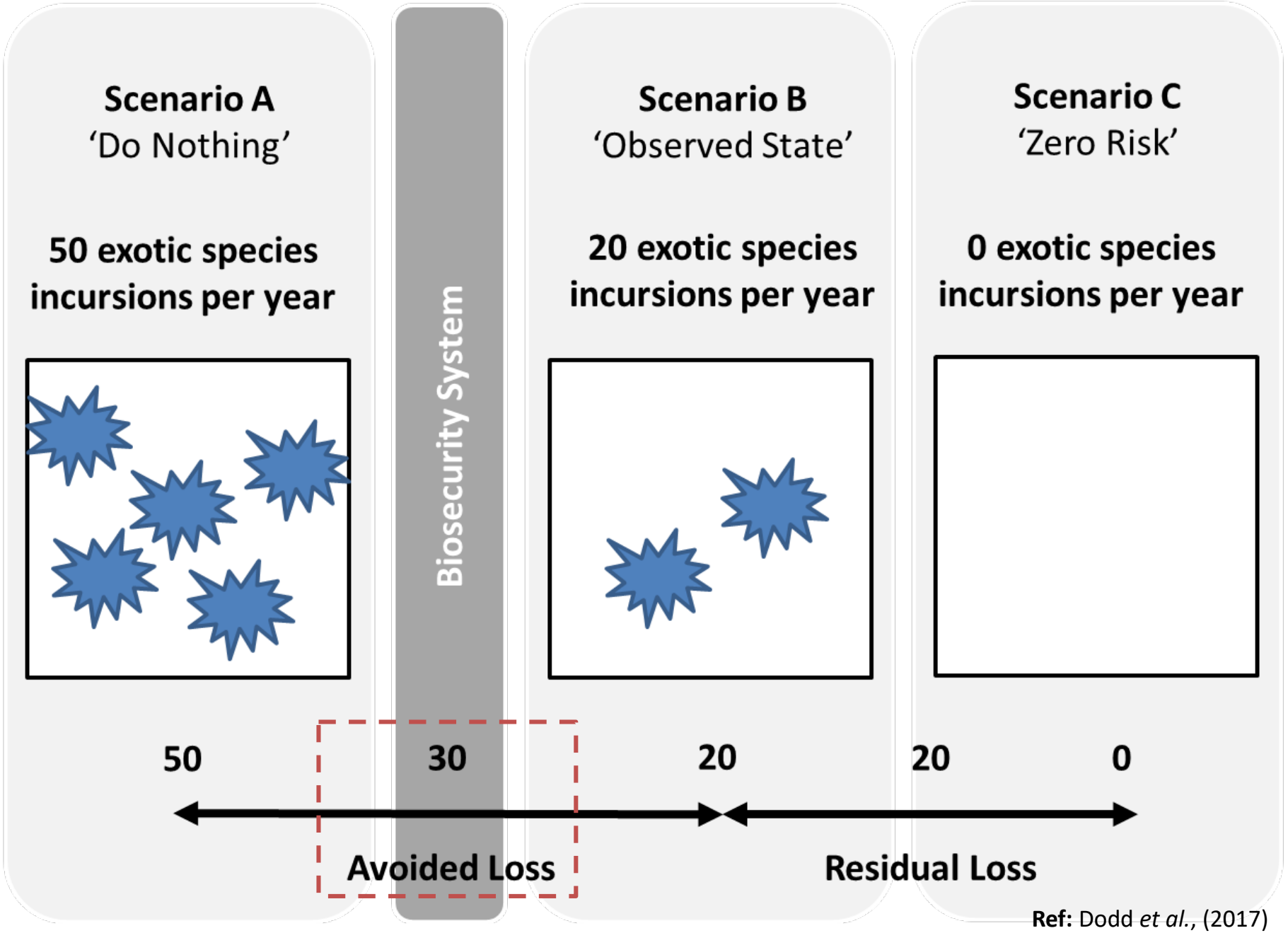

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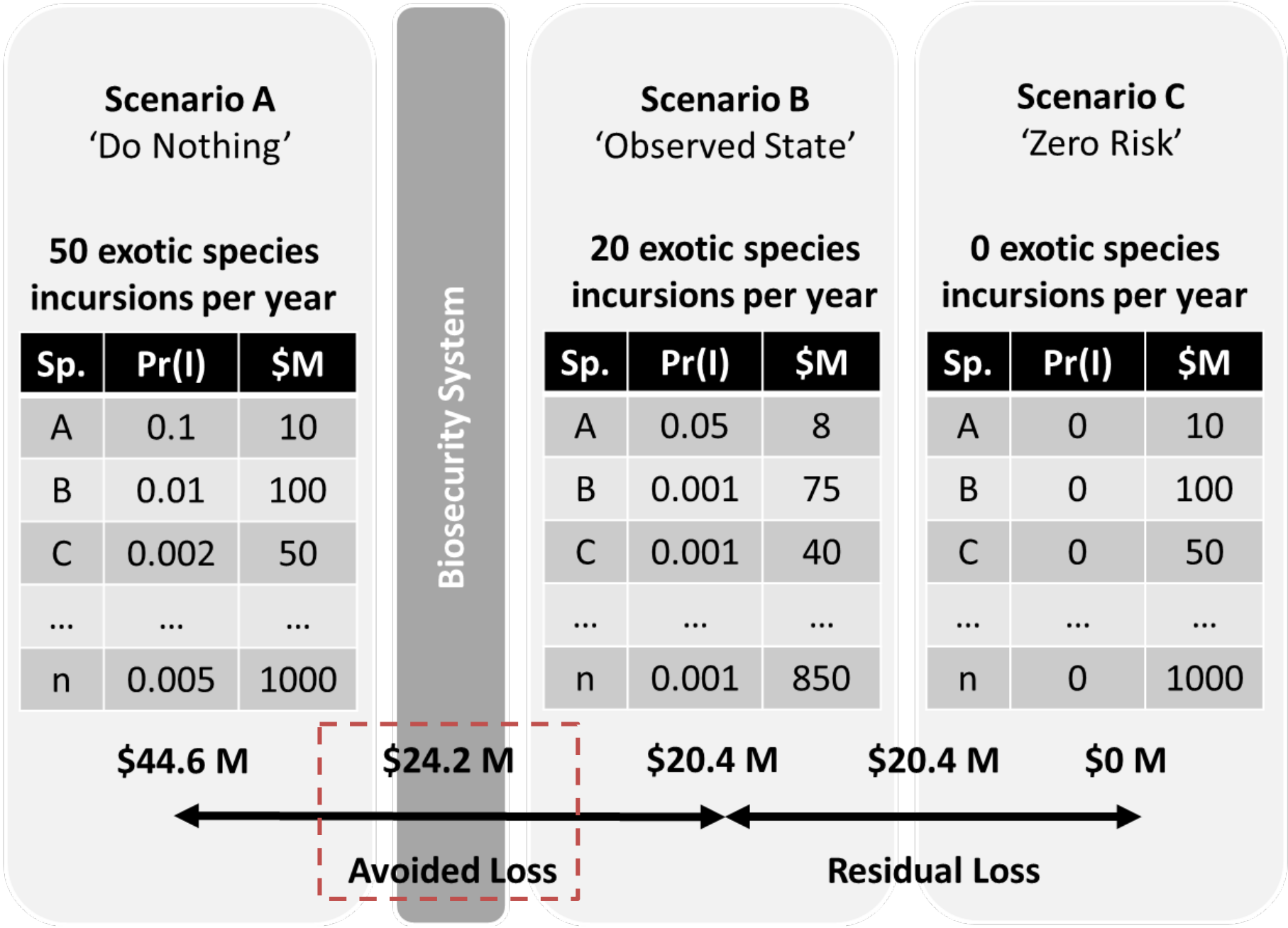
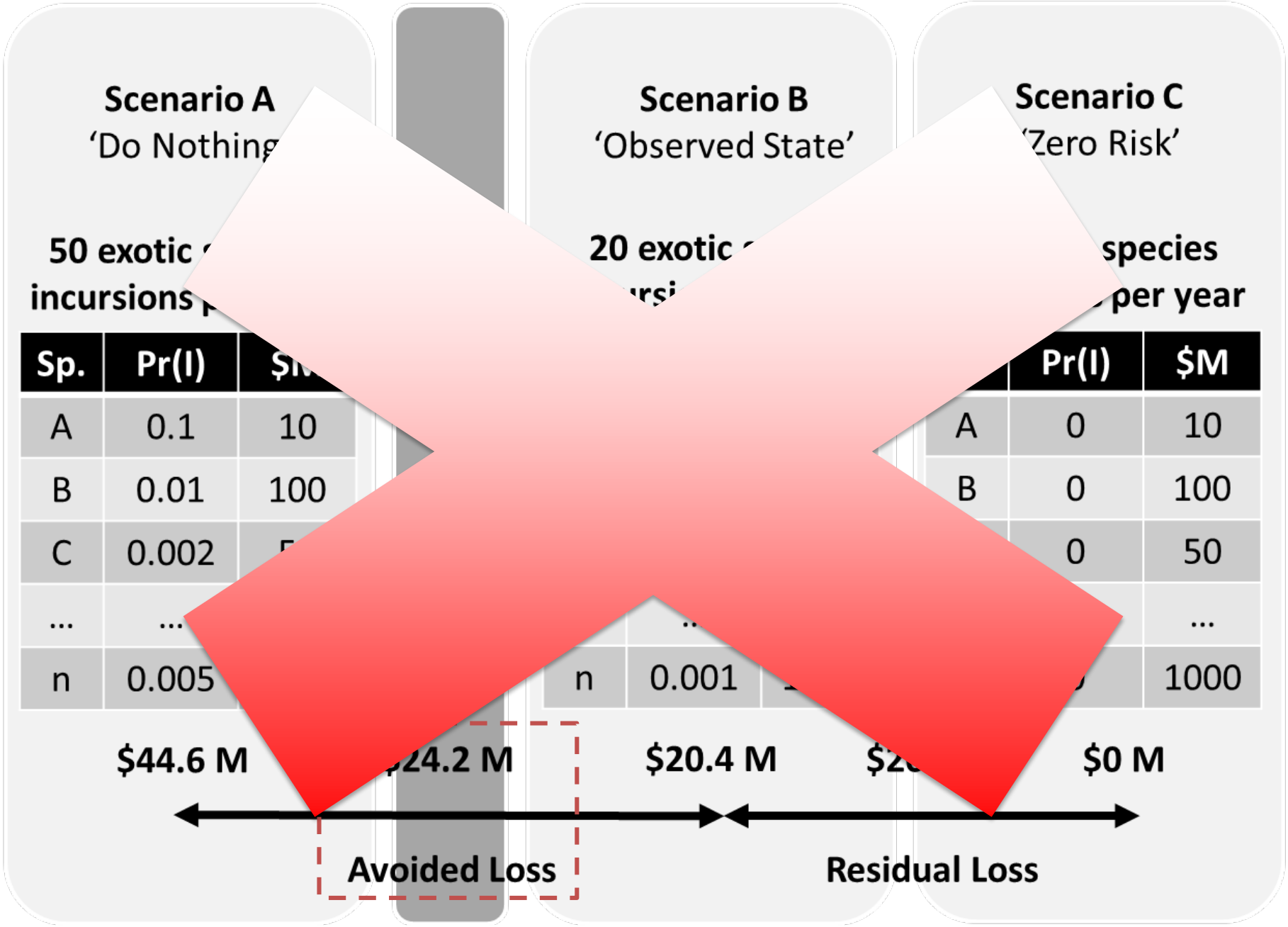
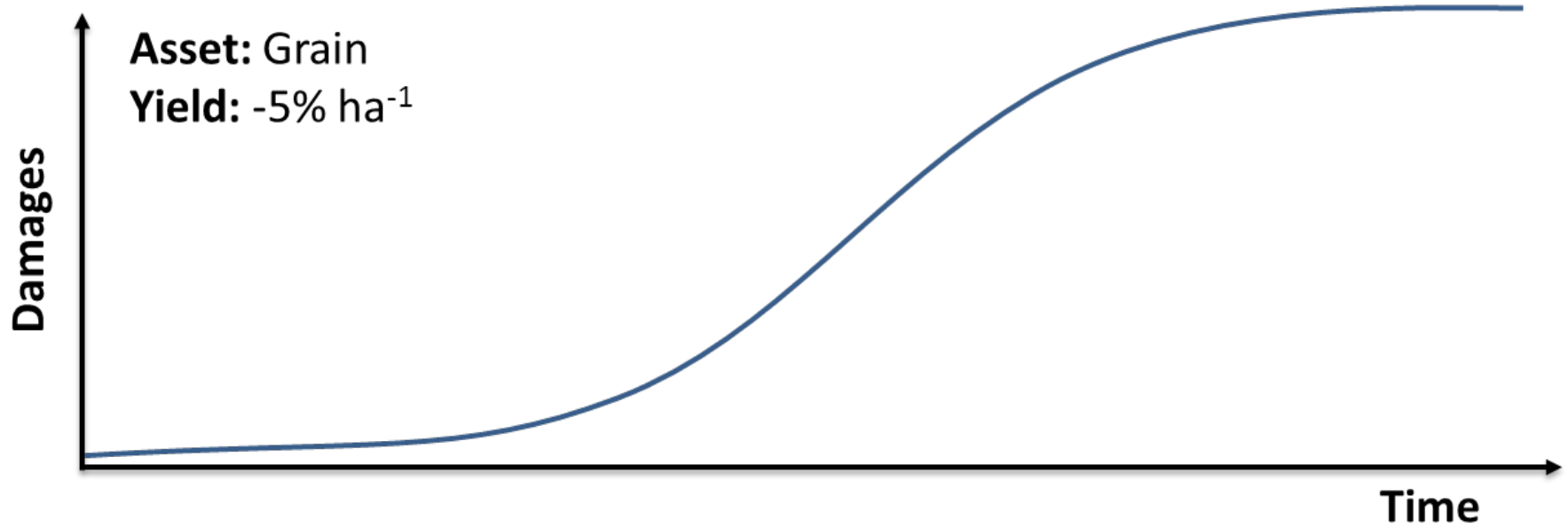
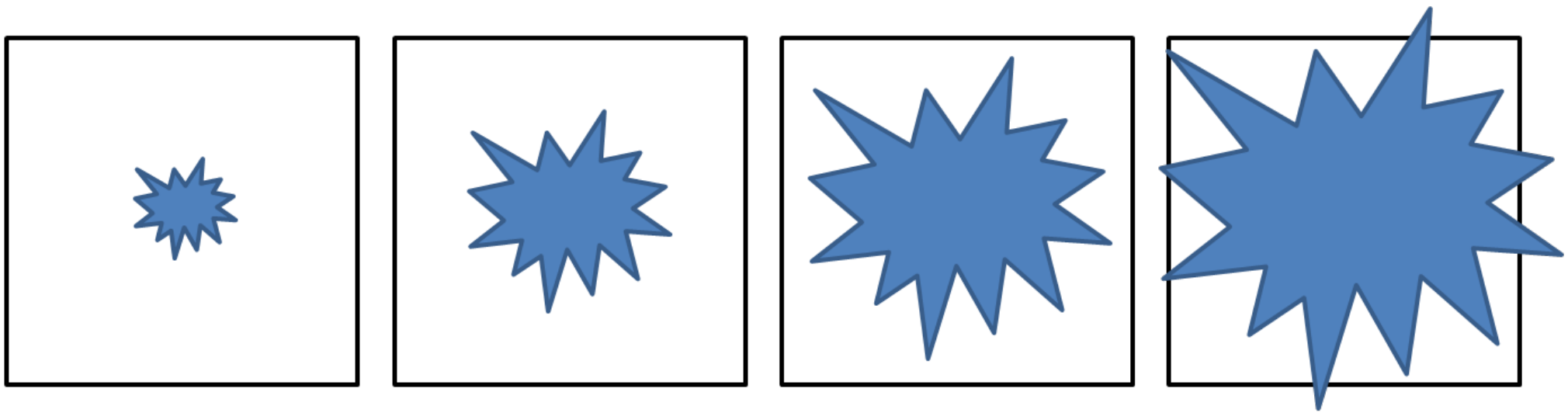
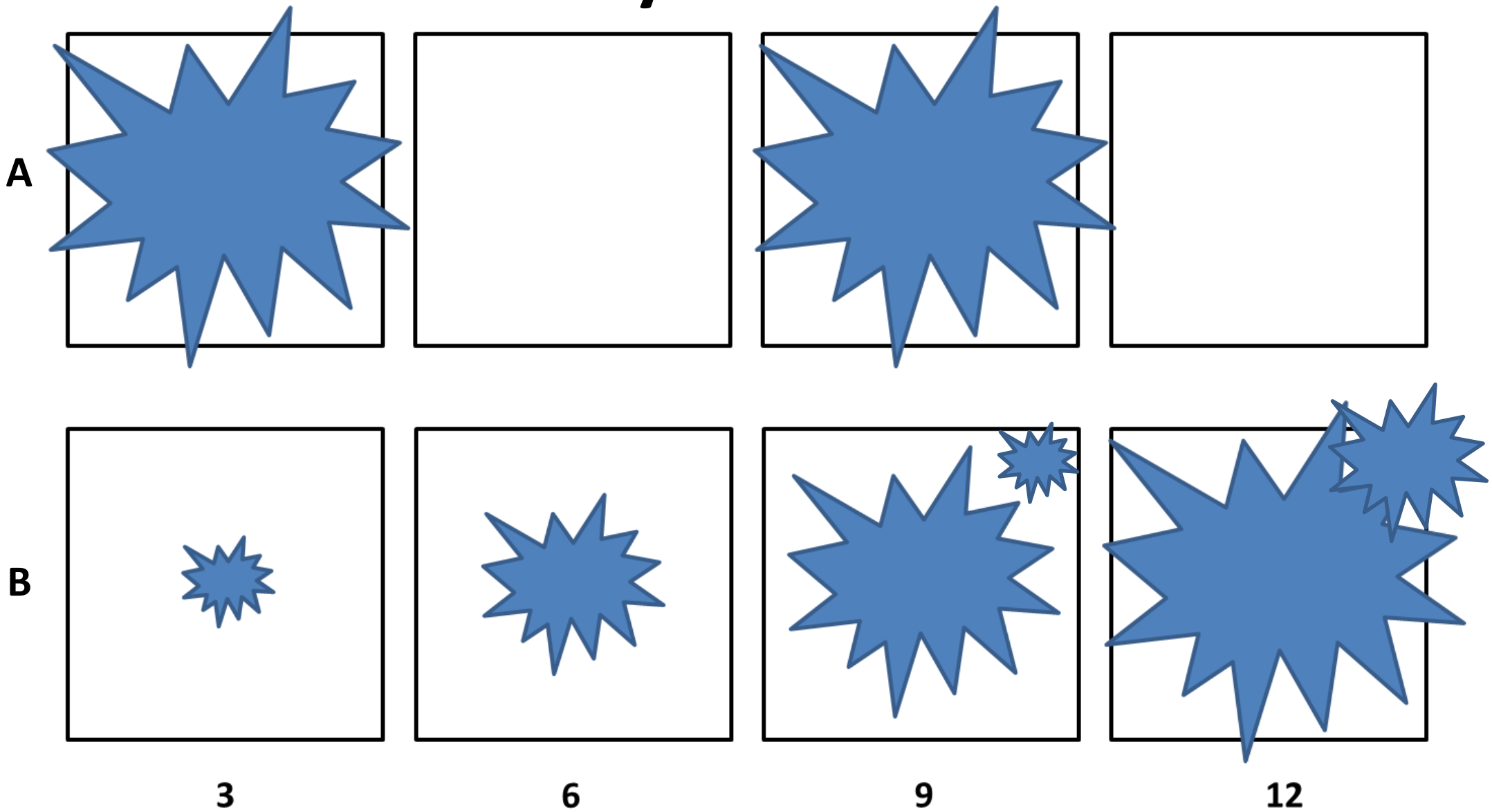




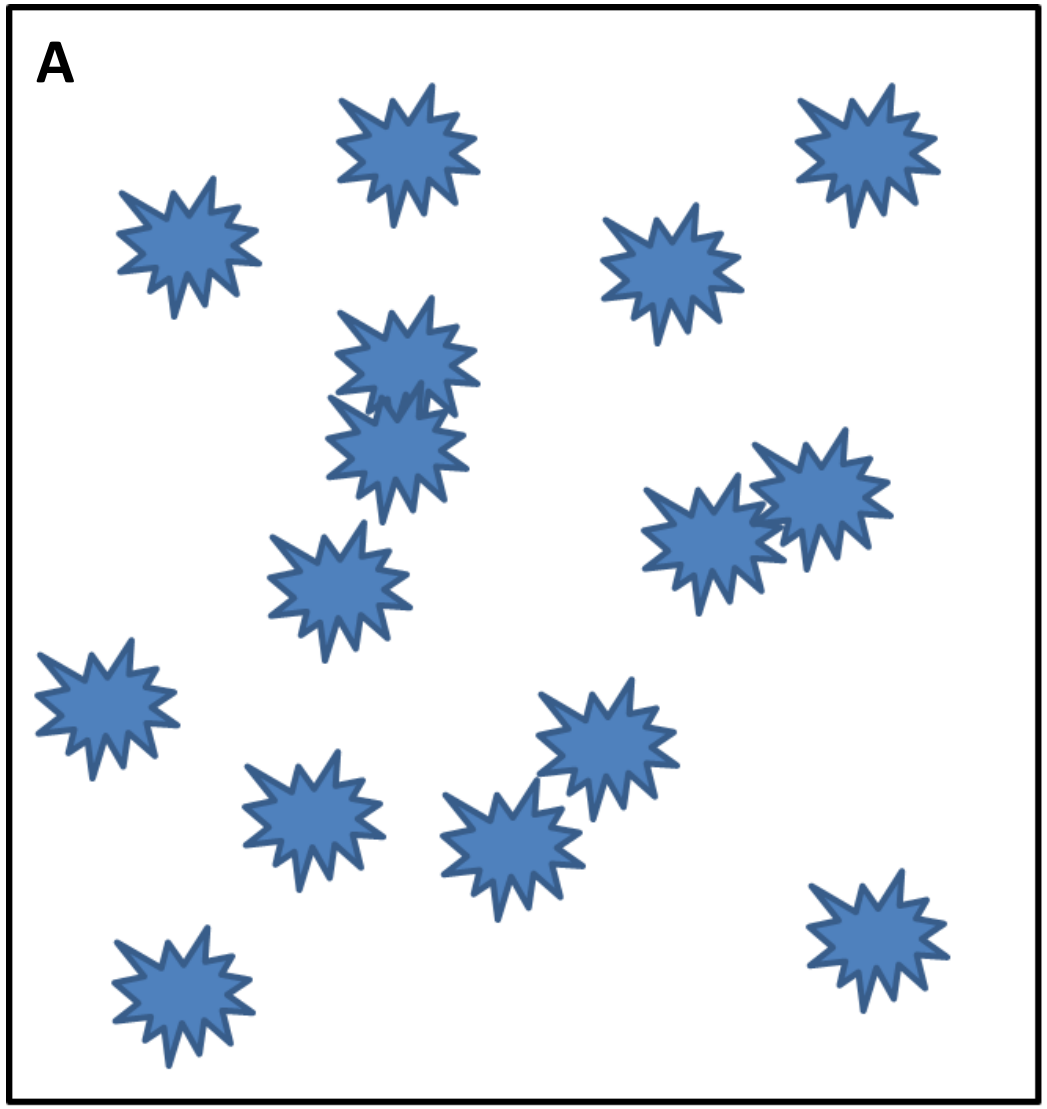


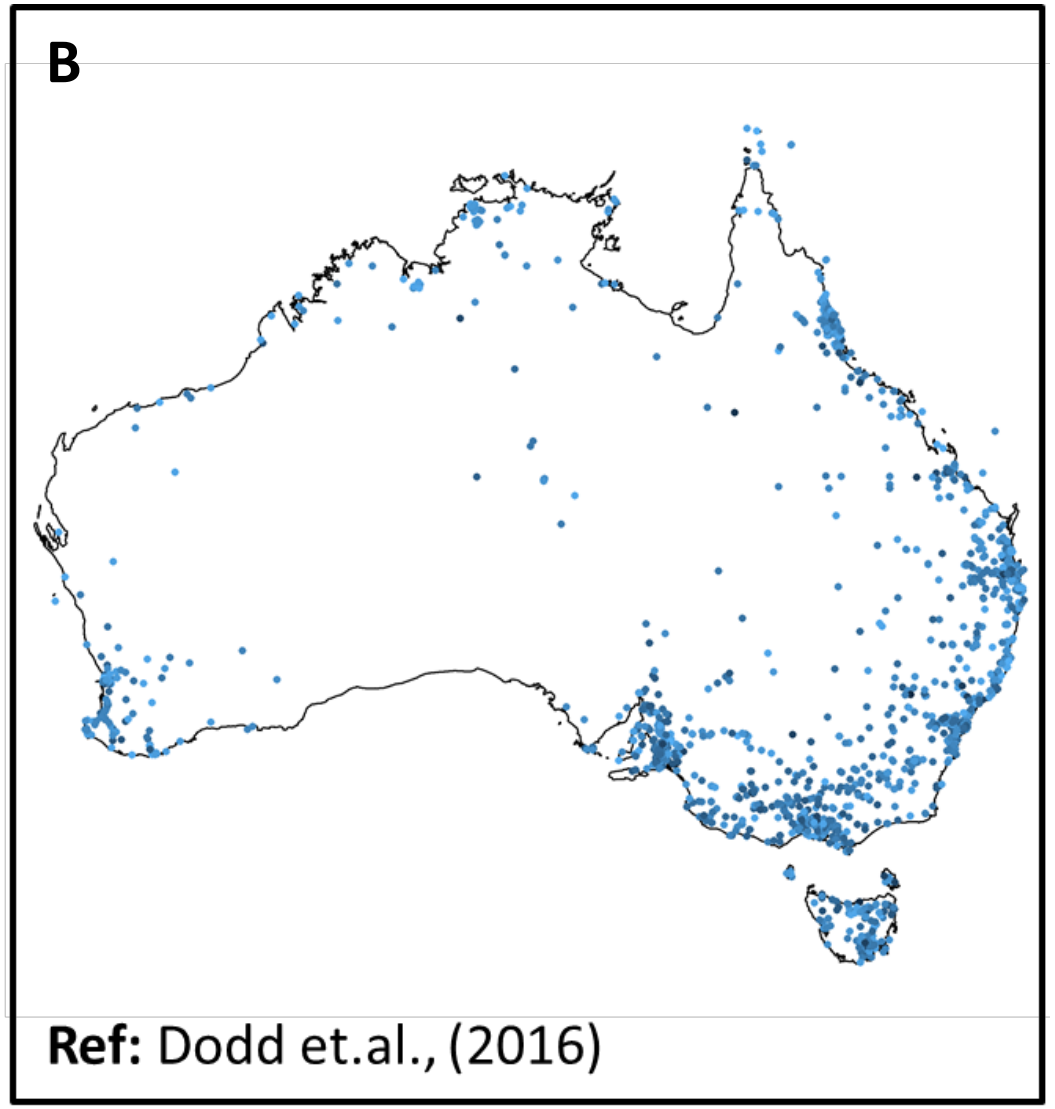


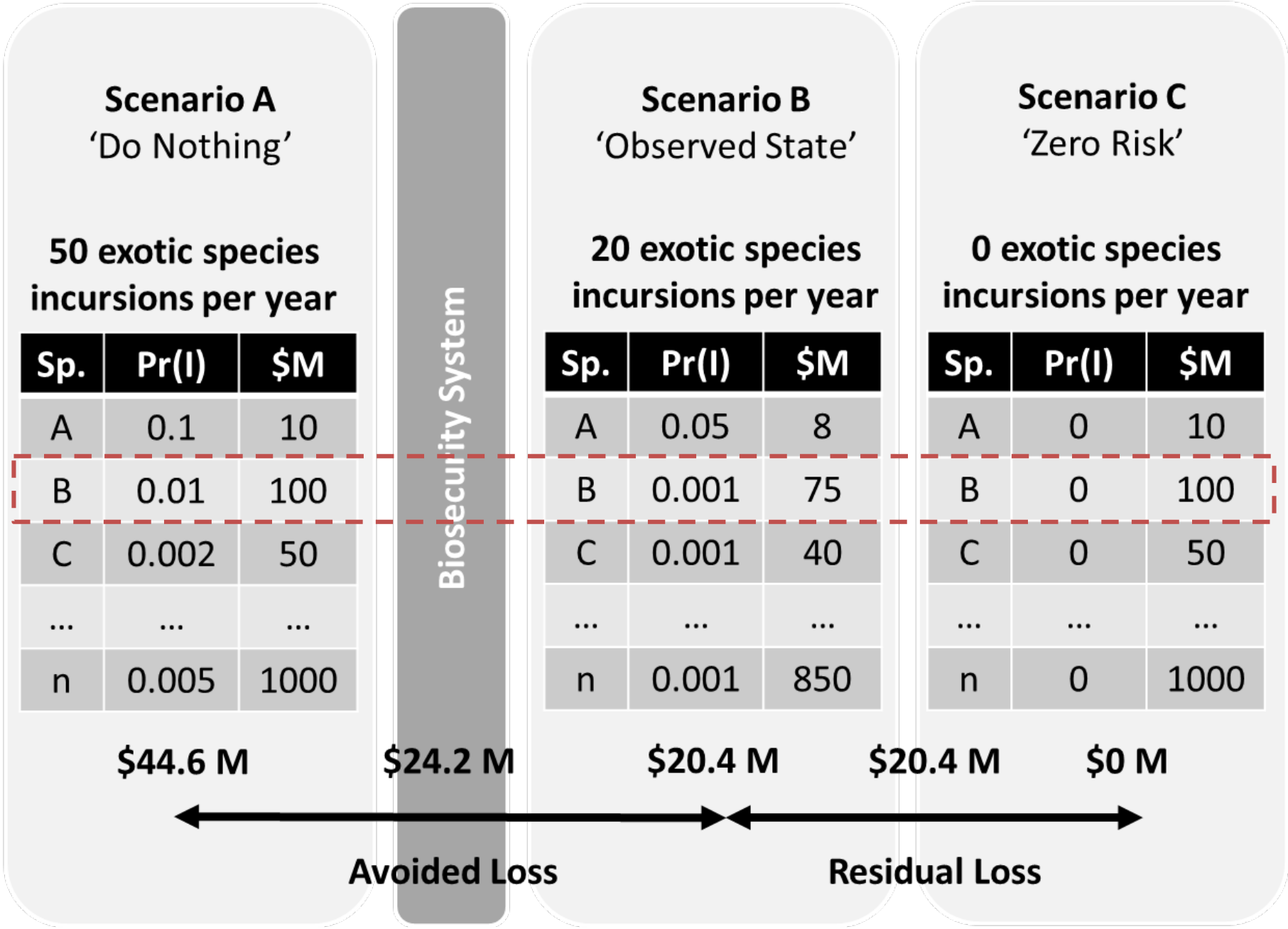
Issue 1: Irreversibility



Issue 2: Spatial Correlation







Issue 3: *Ceteris paribus*

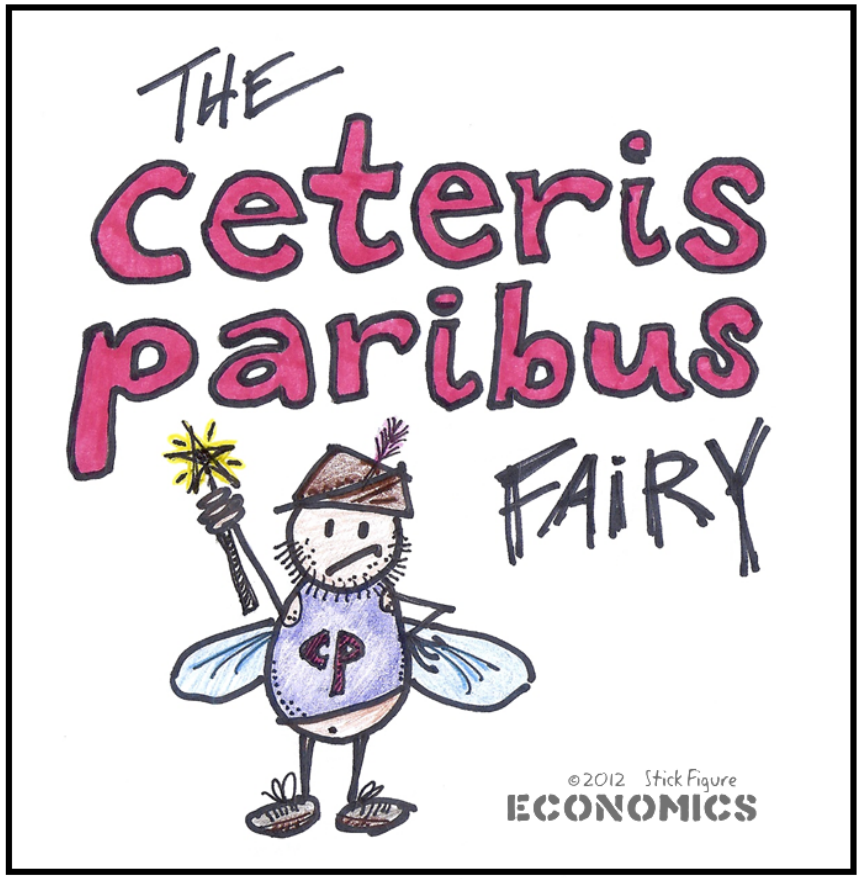
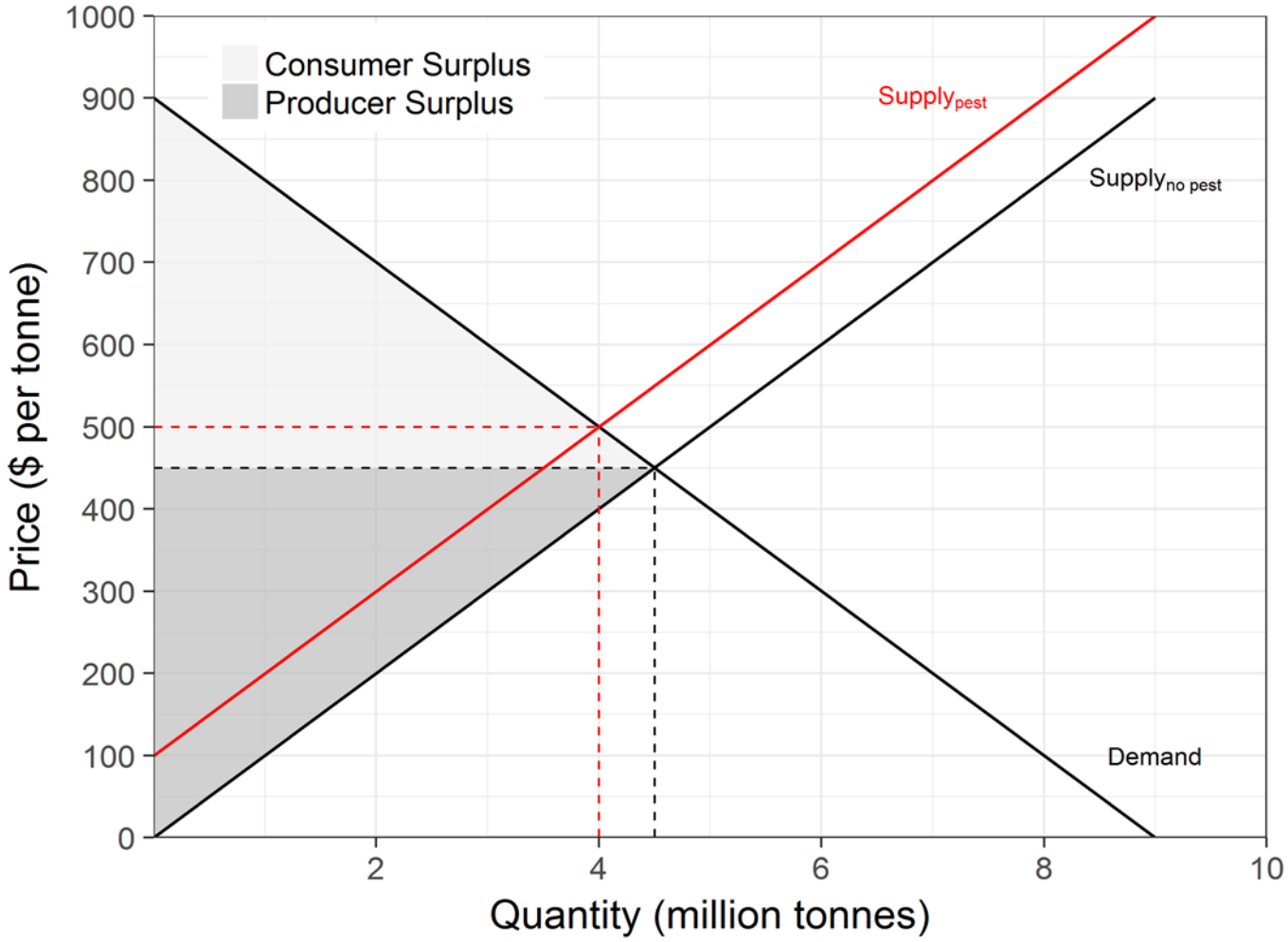
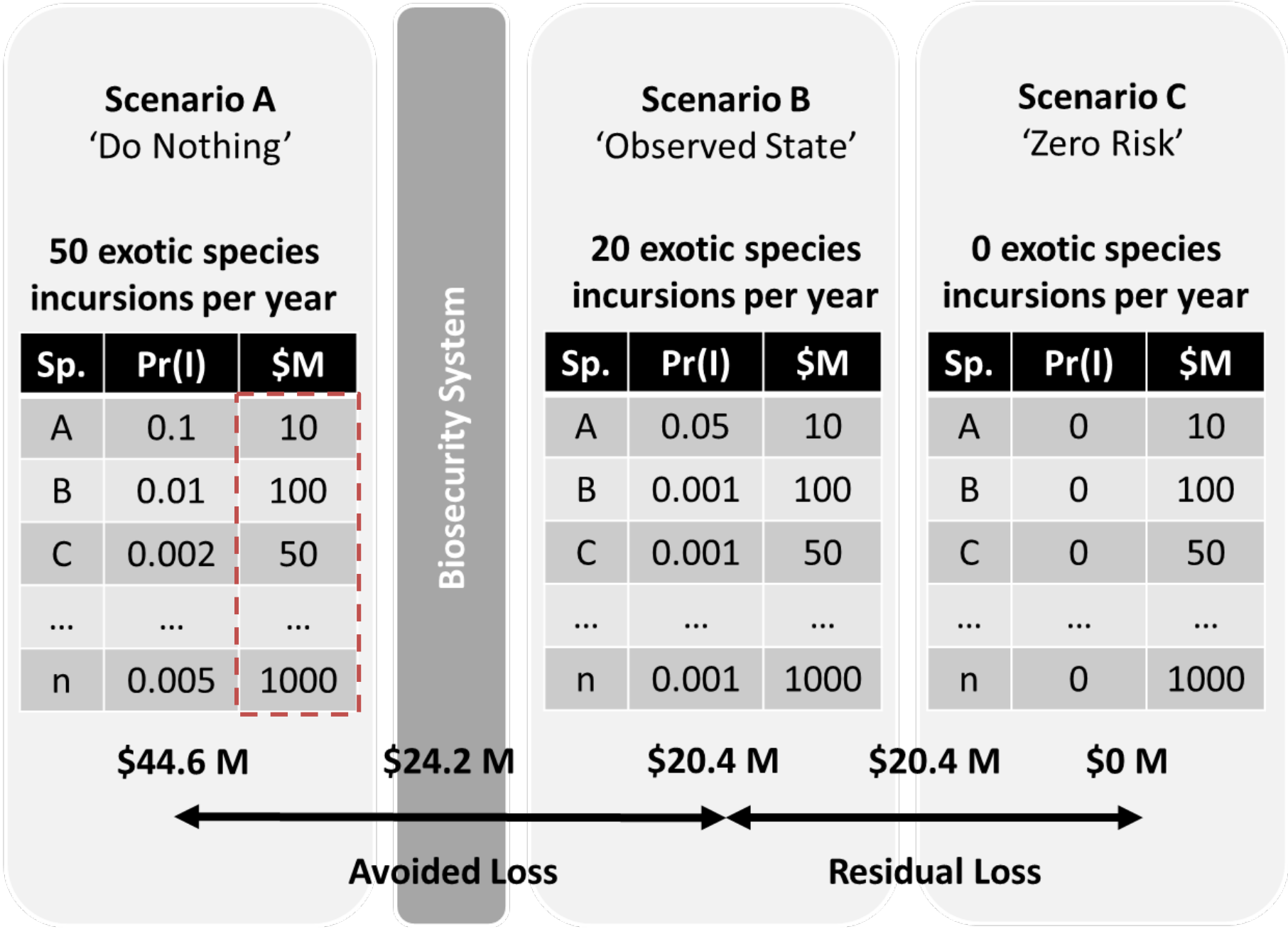
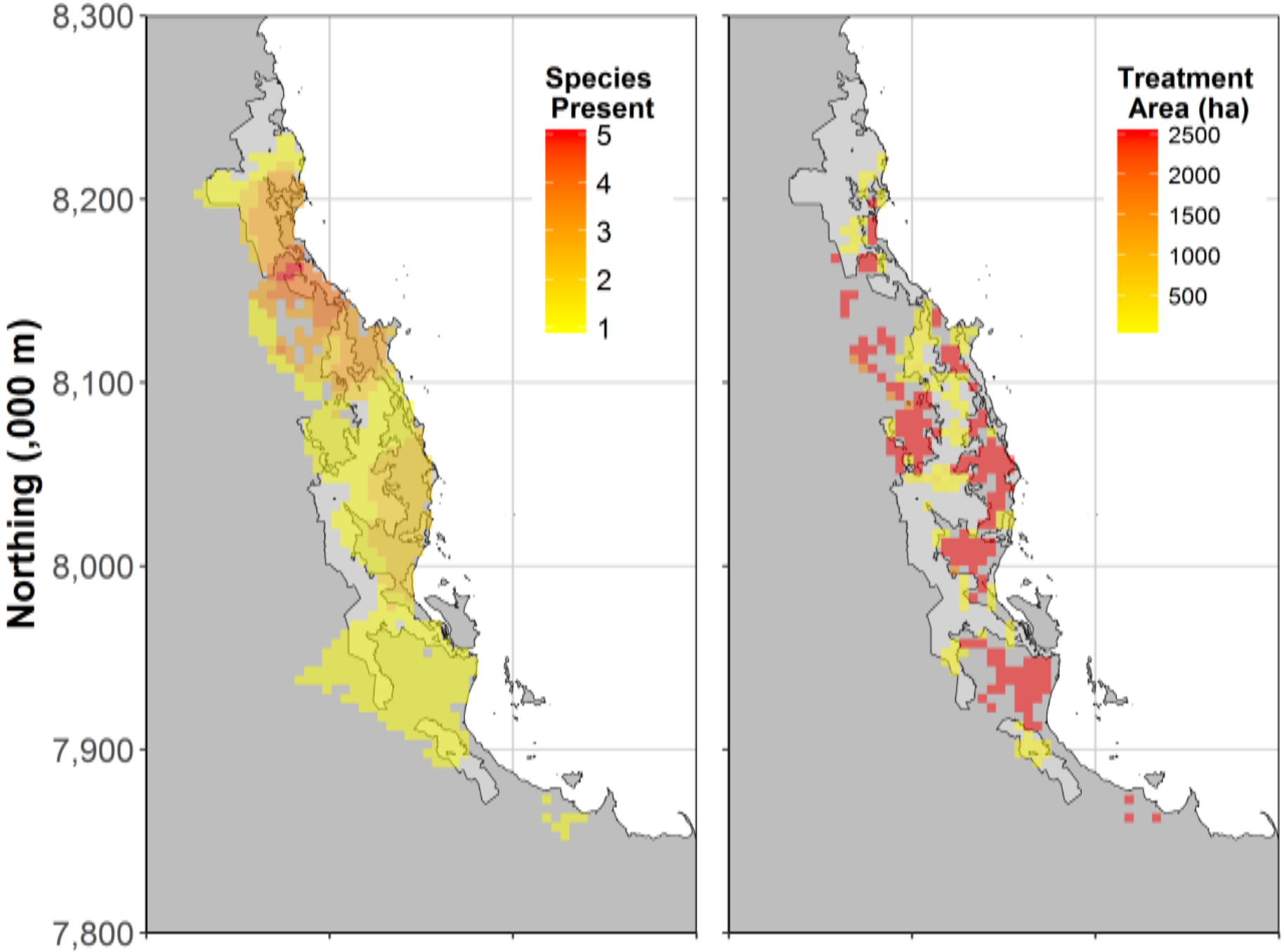
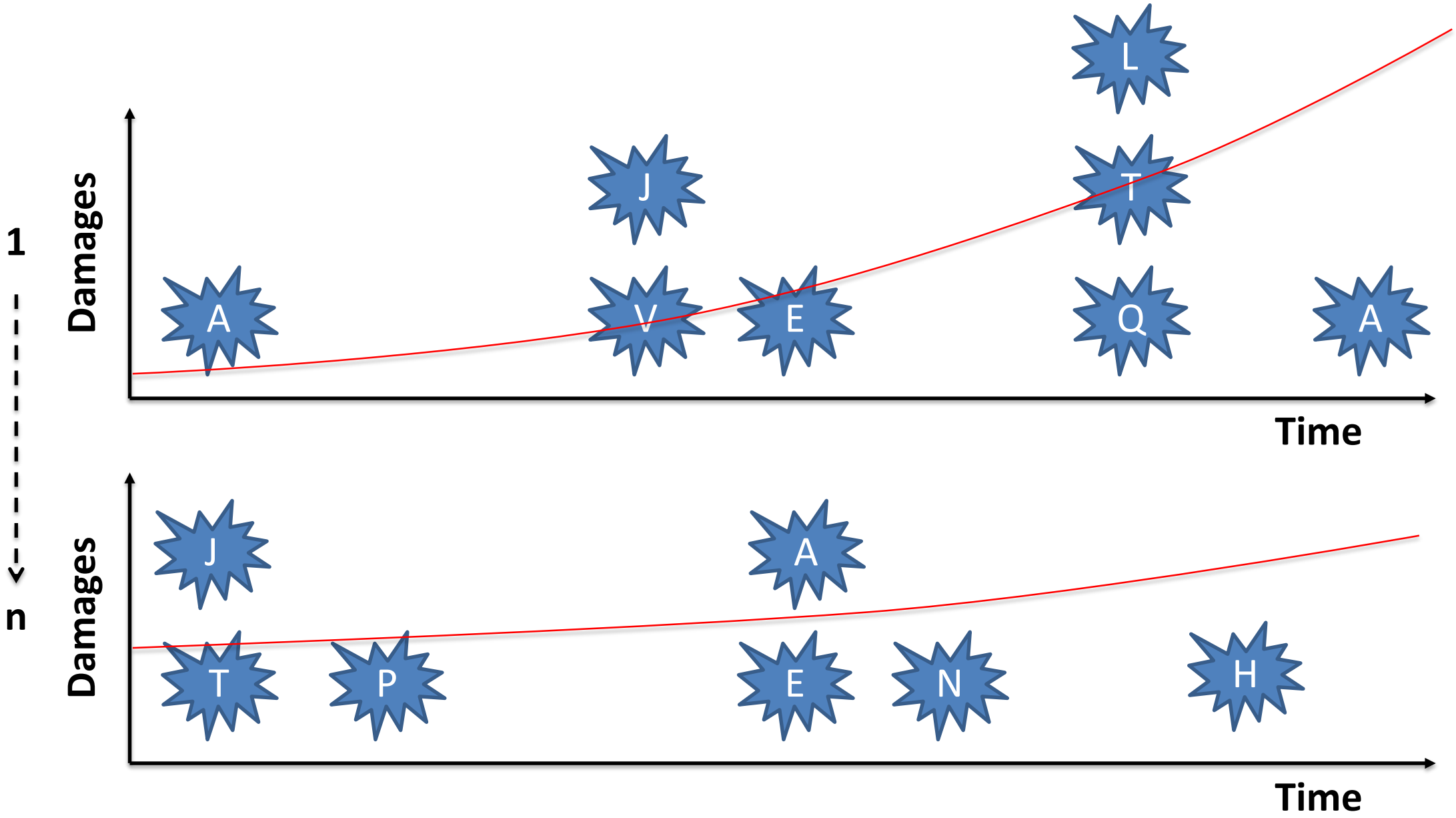


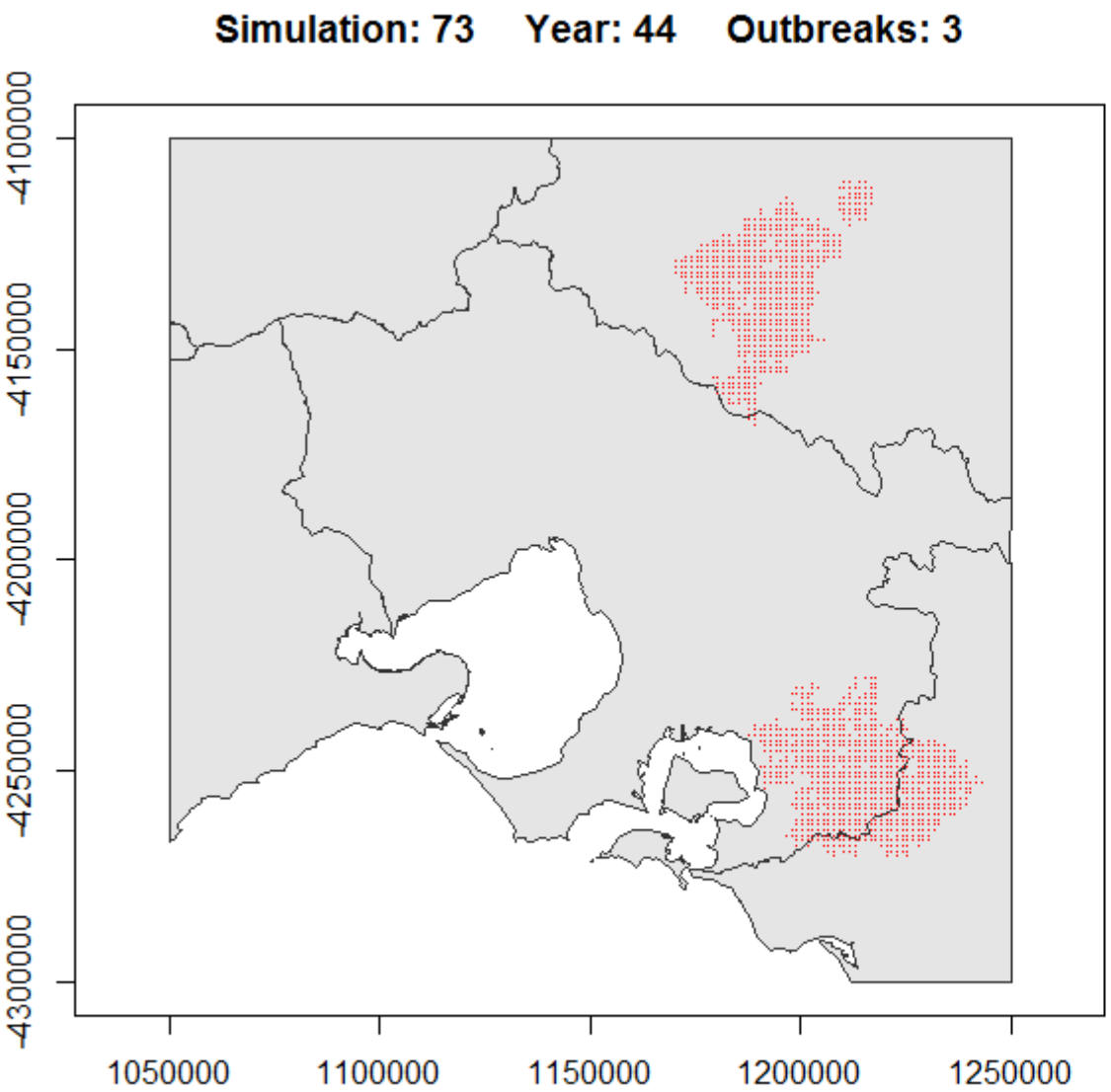
Image: http://stickfigureeconomics.blogspot.com

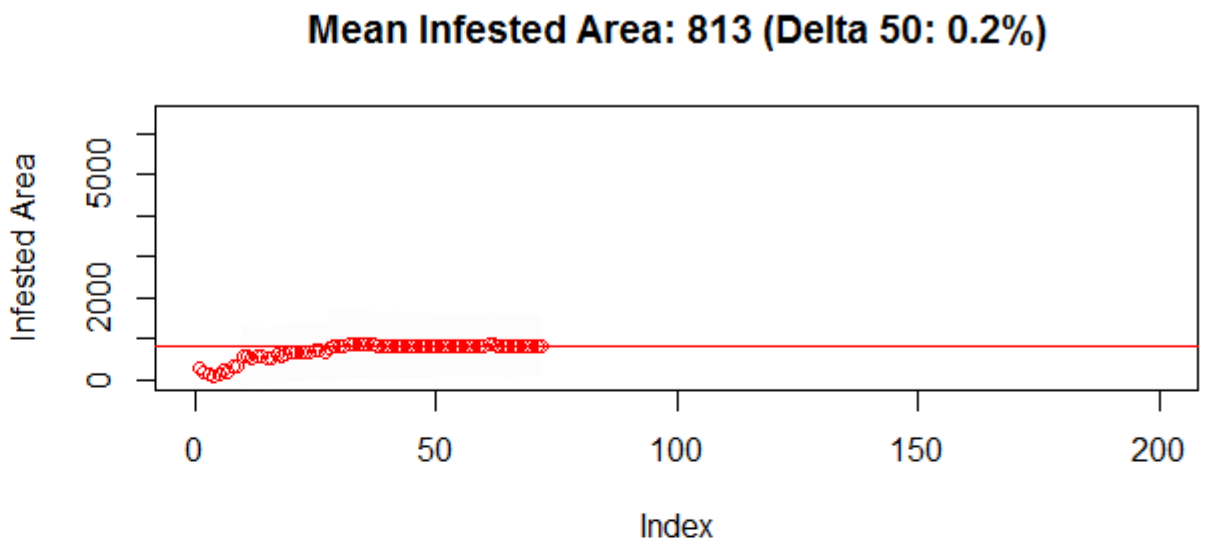


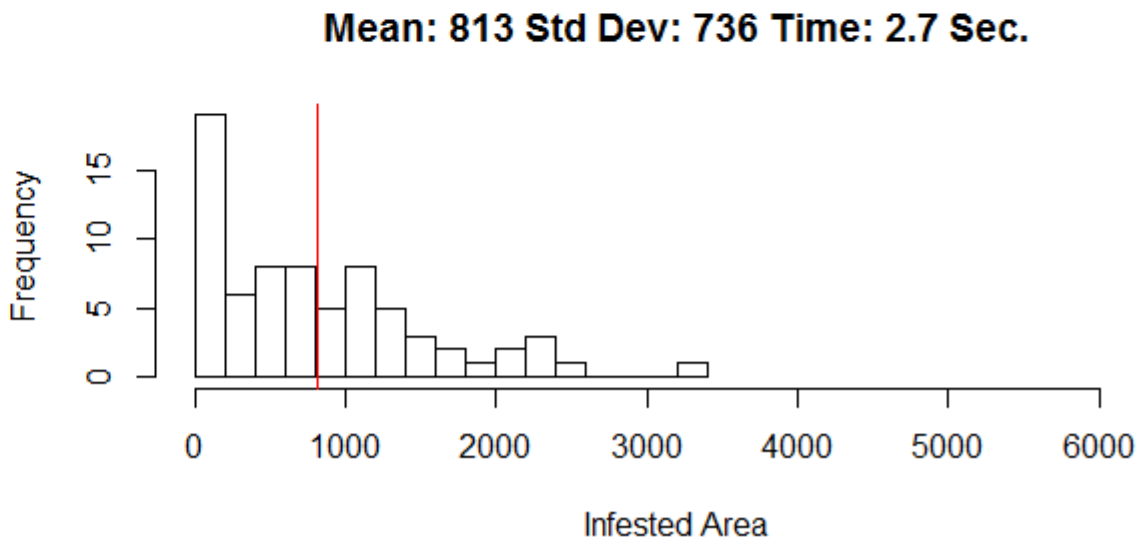












Simulation = n Time = 0

Simulation = n Time = 3

Simulation = n Time = 6

Simulation = n Time = 9

Asset	Region		
	A	B	C
Wheat	-900	-450	0
Beef	0	-700	0
…	…	…	…
Tourism	0	-250	-650
Social	0	0	-1200

Thank you

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