

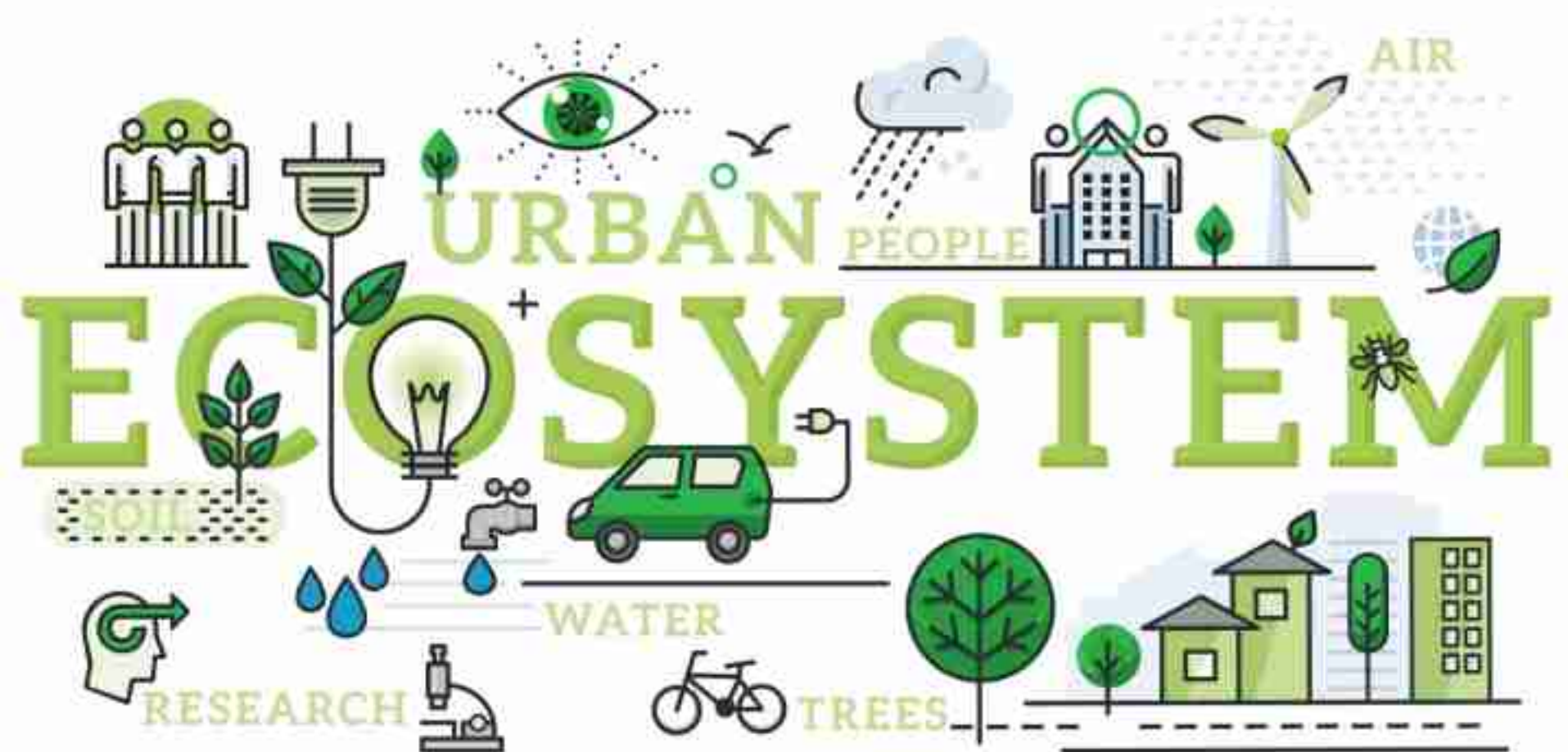
La riorganizzazione delle colonie di roditori e dei gruppi di uccelli durante il lockdown

Dino
Scaravelli



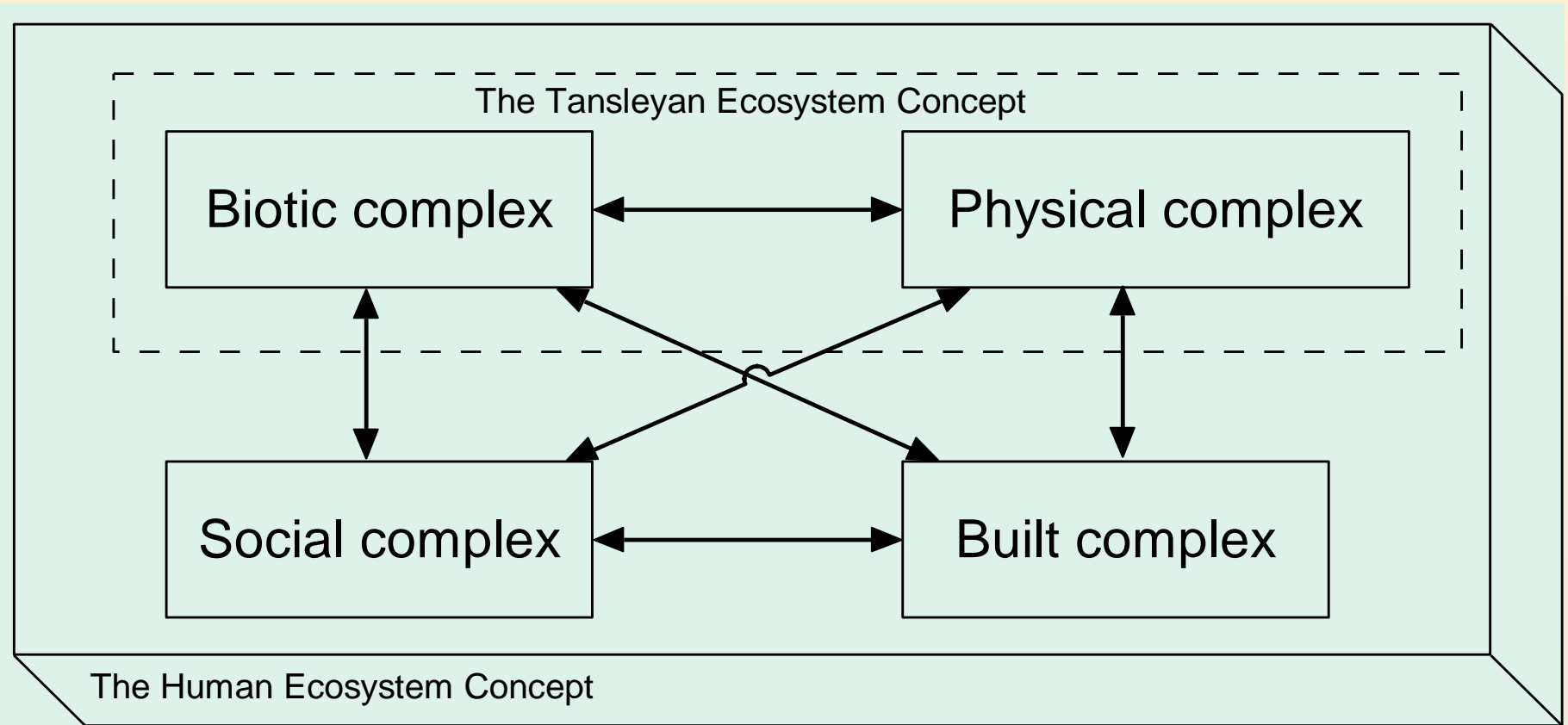
UniBo
Adjunct professor
Department of Biological, Geological,
and Environmental Sciences

Lab Zoologia Applicata - Forlì



Fauna urbana e sanità pubblica





Un Ecosistema complesso



Piu che fauna che va in città, città che si allarga
e consuma il territorio della fauna



SEMPRE PIÙ ABITATO

K. Szlavecz et al.

Table 6.1 Trends of urbanization by major areas

Percentage of population residing in urban areas

	1950	2000	2030	Projected annual rate of urbanization (%) 2005–2030
Africa	14.7	36.2	50.7	1.12
Asia	16.8	37.1	54.1	1.23
Europe	50.5	71.1	78.3	0.33
Latin America and the Caribbean	42.0	75.4	84.3	0.34
North America	63.9	79.1	86.7	0.29
Oceania	62.0	70.5	73.8	0.17
World	29.0	46.7	59.9	0.83

Source: United Nations, Department of Economic and Social Affairs, Population Division 2006.
Used with permission.



I Roditori sono un
grandissimo
gruppo di specie
di grande
interesse
ecologico ed
etologico, con
grandi capacità di
adattamento

L'emergenza per il COVID19

Un cambiamento epocale



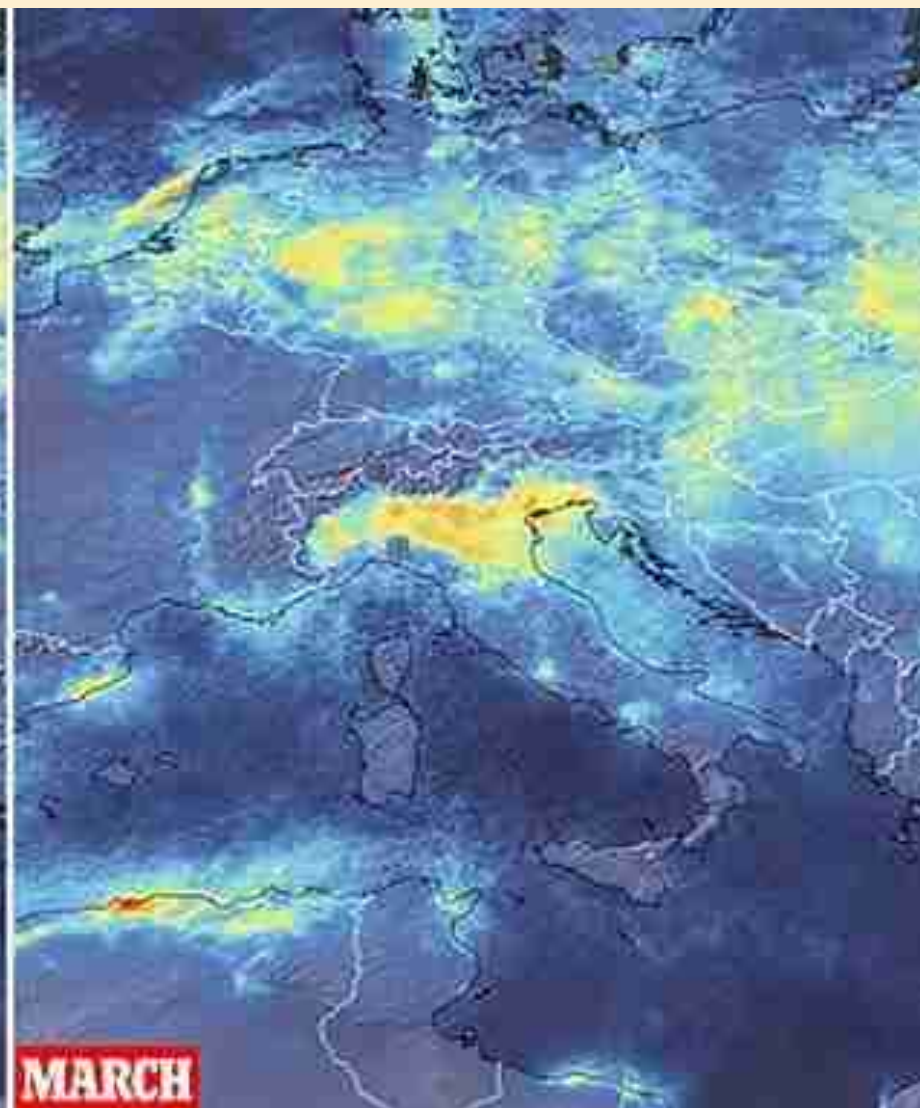
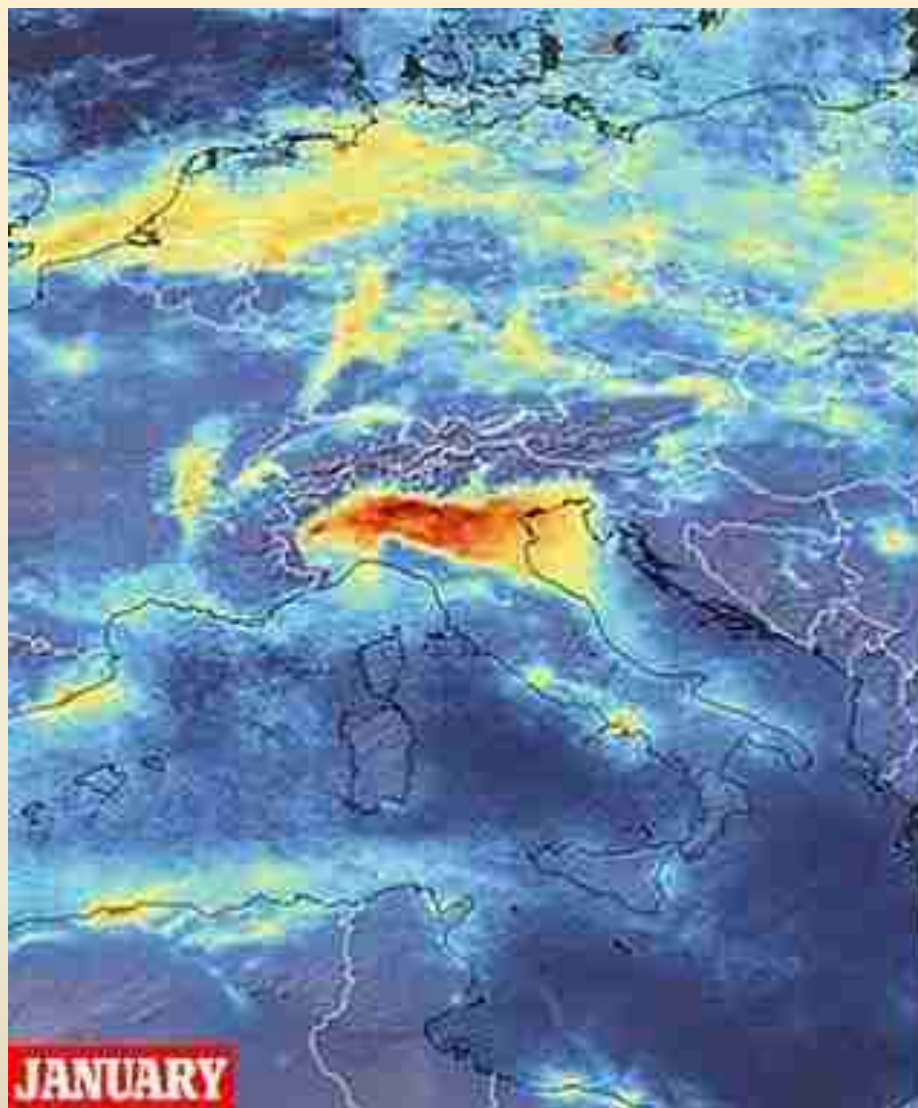
Blocco circolazione dei mezzi e delle persone

Blocco attività di ristorazione

Diminuzione dei consumi e della produzione di rifiuti (specie alimentari)

Minore attenzione alle attività di controllo





Crollo dell'inquinamento....

Rapido inurbamento della fauna



Imponente diminuzione dell'inquinamento sonoro



ENVIRONMENT

Coronavirus lockdown gives animals rare break from noise pollution

The COVID-19 lockdown could become an unprecedented natural experiment in noise pollution. Some of the world's most vocal animals — birds and whales — might already be benefiting from a quieter environment.

Maggiore mobilità della fauna





FORTE CAMBIAMENTO DELLE DISPONIBILITÀ ALIMENTARI PER I
RODITORI

*Anche piccoli nuovi ...
movimenti*



NEGATIVO IMPATTO
MEDIATICO SUI
CHIROTTERI
CHE NON HANNO
DIRETTA RELAZIONE
CON QUESTO VIRUS



I CHIROTTERI SONO STRETTAMENTE PROTETTI
PENALMENTE PERSEGUIBILE OGNI AZIONE
CONTRO DI LORO





viruses

Review

Bats and Coronaviruses

Arijay Banerjee ^{1,†}, Kirsten Kuleas ^{2,†},
Karen Mosman ^{1,*}



...sistence in

...ew Frieman ² and

OPEN

Selection of viral variants during persistent infection of insectivorous bat cells with Middle East respiratory syndrome coronavirus

Arijay Banerjee ^{1,3,†}, Sonu Subudhi ^{1,4,5}, Noreen Rapin ¹, Jocelyne Law ¹, Richa Jain ¹,
Dairyl Falzarano ^{1,7} & Vikram Misra ^{2,8}

**SCIENTIFIC
REPORTS**

nature research



Review

Immune System Modulation and Viral Bats: Understanding Viral Spillover

Sonu Subudhi ^{1,*}, Noreen Rapin and Vikram Misra ²



ALMENO ORA TUTTI SANNO COS'È IL POVERO PANGOLINO
A RISCHIO DI ESTINZIONE E ANCORA ILLEGALMENTE CONSUMATO



ALTRE CULTURE,
ALTRI USI

ALLEVATRICE DI Ratti del
riso per uso alimentare,
come da noi i conigli



Condividi:



Commenti:



Un altro virus fa il salto di specie: "L'epatite dei topi colpisce l'uomo"

*Dopo l'incubo Covid, un altro virus mette paura alla Cina e a tutto il mondo:
"L'epatite E passa dal topo all'uomo"*

Francesca Bernasconi - Ven. 06/09/2020 - 22:34



commento

Sembra che un altro virus stia facendo il salto di specie. Si tratta dell'epatite E che solitamente infetta i topi.



Assurde confusioni, notizie mal riportate,
ignoranza diffusa, scandalismo pericoloso



Da sempre i roditori pericolosi vettori di zoonosi, solo perché vivono a contatto con noi



+



Xenopsylla cheopis

+



Yersinia pestis



= PESTE

1348



Roditori e zoonosi

Zoonoses	Pathogen type	Zoonoses	Pathogen type
Anaplasmosis	Bacteria	Lassa fever	Virus
Angiostrongyliasis	Helminth	Leishmaniasis - cutaneous	Protozoa
Angiostrongyliasis - abdominal	Helminth	Leishmaniasis - mucocutaneous	Protozoa
Argentine hemorrhagic fever	Virus	Leishmaniasis - visceral	Protozoa
Babesiosis	Protozoa	Leptospirosis	Bacteria
Bartonellosis - cat borne	Bacteria	Lyme disease	Bacteria
Bartonellosis - other systemic	Bacteria	Lymphocytic choriomeningitis	Virus
Baylisascariasis	Helminth	Mayaro	Virus
Bolivian hemorrhagic fever	Virus	Monkeypox	Virus
California encephalitis group	Virus	North Asian tick typhus	Bacteria
Capillariasis - extraintestinal	Helminth	Penicilliosis	Fungus
Chikungunya	Virus	Plague	Bacteria
Colorado tick fever	Virus	Powassan	Virus
Coltivirus - Old World	Virus	Rabies	Virus
Crimean-Congo hemorrhagic fever	Virus	Relapsing fever	Bacteria
Cryptosporidiosis	Protozoa	Rickettsialpox	Bacteria
Dermatophytosis	Fungus	Rift Valley fever	Virus
Eastern equine encephalitis	Virus	Schistosomiasis - mansoni	Helminth
Ebola	Virus	Spotted fevers - Old World	Bacteria
Echinococcosis - American polycystic	Helminth	Tick-borne encephalitis	Virus
Echinococcosis - multilocular	Helminth	Toxocariasis	Helminth
Echinococcosis - unilocular	Helminth	Toxoplasmosis	Protozoa
Echinostomiasis	Helminth	Trypanosomiasis - African	Protozoa
Ehrlichiosis - human monocytic	Bacteria	Trypanosomiasis - American	Protozoa
Fascioliasis	Helminth	Tularemia	Bacteria
Giardiasis	Protozoa	Typhus - endemic	Bacteria
Hantavirus infection - Old World	Virus	Typhus - epidemic	Bacteria
Hantavirus pulmonary syndrome	Virus	Typhus - scrub	Bacteria
Hepatitis E	Virus	Vaccinia and cowpox	Virus
Histoplasmosis	Fungus	Venezuelan equine encephalitis	Virus
Hymenolepis diminuta infection	Helminth	Venezuelan hemorrhagic fever	Virus
Hymenolepis nana infection	Helminth	West Nile fever	Virus
Japanese spotted fever	Bacteria	Whitewater Arroyo virus	Virus
		Yersiniosis	Bacteria



Come mai.....

Rapido cambiamento delle
popolazioni...

Rapido cambiamento delle
abitudini.....

Rapida progressione dei
problemi...



Un segreto non segreto..... riproduzione esplosiva!!



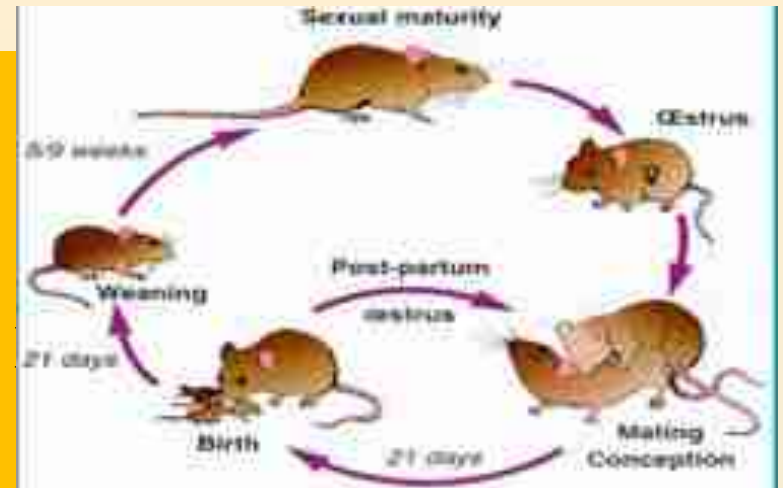
Ratto

Gestazione in media 21 giorni

Fino a 12 piccoli per parto

Si può accoppiare un giorno dopo il

Pubertà a 3 mesi



Dopo l'accoppiamento, la femmina sviluppa un tappo vaginale che persiste per un giorno e le impedisce di essere montata da altri maschi

Topo

Massimo di quindici parti annuali

Gravidanza di circa 21 giorni

Numero di piccoli tra 3 e 14

A 6 settimane per le femmine ed 8 per i maschi sono in grado di riprodursi

THE RODENT BREEDING CYCLE

LITTERS

A single female is able to produce 8 litters in a year



with separate litters birthed within 25 days of each other



GESTATION

Pregnancy cycle lasts anywhere between

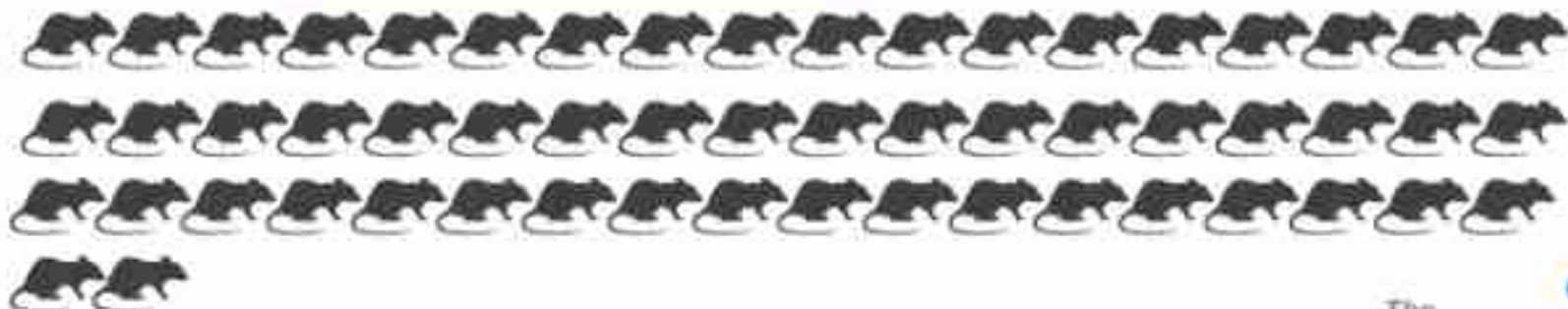


OFFSPRING

Average litter ranges from 6-12 offspring



= ROUGHLY **56 OFFSPRING** IN A YEAR FROM ONE FEMALE



E di bocca buona!!



Underestimating the rat's intelligence

Hank Davis

Abstract

Although rats are a much maligned species, it appears that their intelligence has been underestimated. This paper surveys evidence of cognition in rats from traditional categories (e.g. temporal and numerical competence) as well as from less ordinary test situations (e.g. transitive inference; recognition of individual humans). Although rats may not approach cognitive tasks using strategies observed in human subjects, they are frequently successful on their own terms. Indeed, rats are adept at exploiting procedural loopholes and confounded variables overlooked by human test designers. While not lending itself to the conventional classification of intelligence, this form of 'intellectual optimal foraging' may be an apt general description of the rat's cognitive prowess.



Rat invasion: Number of rodents surges during coronavirus lockdown

RAT and mice activity is surging during the coronavirus lockdown, warned

By KATIE HARRIS



It's not just you: the rats are everywhere

Rodents have taken over lockdown London

By Kate Lloyd

Posted: Friday May 15 2020, 10:44am



UK rat warning: 120 million rats could invade homes - 'They cause fires, floods and death'

BRITISH homes could be invaded by up to 120 million rats this winter, pest control experts have warned.

By LUKE HANKE

up to 120 million rats this winter, pest control

CDC warns of aggressive cannibal rats
facing shortage of garbage to eat



i Roditori sinantropici vivono in stretto contatto con l'uomo e hanno adattato la loro ecologia al particolare tipo di habitat, quello antropico, costruito dagli umani. Poche sono le specie in grado di adattarsi al nostro sistema, ma quelle che riescono divengono immediatamente di successo aggregandosi alla specie assolutamente dominante sul pianeta.



IMMIGRAZIONE



POPOLAZIONE



EMIGRAZIONE



NATALITÀ



MORTALITÀ



FATTORI NATURALI :
PREDAZIONE,
MALATTIE

USO DI RODENTICI DI

Urgenza del controllo....



Spaventare rende più che informare?



Altro gruppo altri problemi



Problemi piccion-ici





STORNO



PASSERA D'ITALIA

Altre specie dalla
gestione
problematica



CORNACCHIA GRIGIA



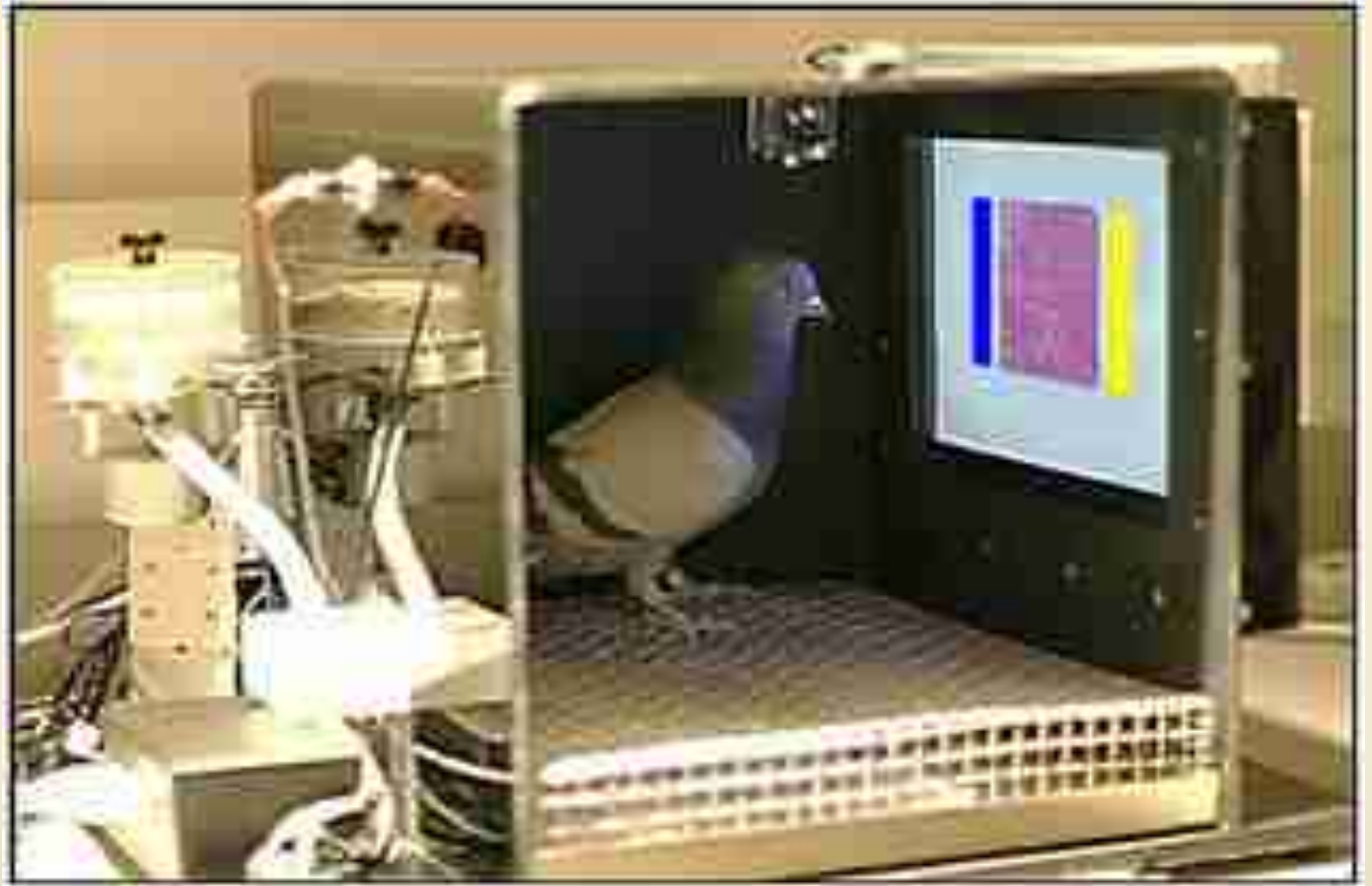
GABBIANO REALE MEDITERRANEO



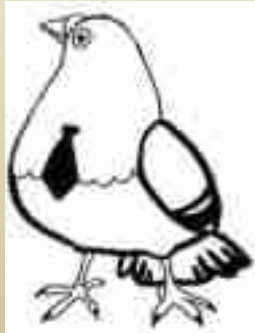
La principale via di
alimentazione dei piccioni
urbani

DIMINUITA
DRASTICAMENTE CON IL
LOCKDOWN

Certo non stupidi!!!



chamber used to train and test
pigeons' ability to classify images



MAGGIORI
MOVIMENTI PER
TROVARE CIBO!!



CERTI
PROBLEMI
RIMANGONO

E POI
GENERANO....



Ectoparasites from Feral Pigeons Affecting Humans

Daniel Haag-Wackernagel^a, Andreas J. Bircher^a

^aDepartment of Dermatology, Institute of Skin and Allergy, University of Basel, and ^bWegs 104, Department of Dermatology, University Hospital Basel, Basel, Switzerland

Table 2. Ectoparasites transmitted from feral pigeons to humans

Parasites	Reports	Patients
<i>Cimex lectularius</i> , bedbug	1	>2
<i>Cimex columbarius</i> , pigeon bug	2	>6
<i>Ceratophyllus columbae</i> , pigeon flea	7	>11
<i>Dermanyssus gallinae</i> , red mite	29	>74
<i>Ornithonyssus sylvianum</i> , northern fowl mite	1	3
<i>Argas reflexus</i> , pigeon tick	47	>274
<i>Argas latus</i>	1	>2
<i>Argas polonicus</i>	1	>2
Total	89	>374

Numbers of patients are indicated with '>' when the precise number was not communicated.

Parasites from feral pigeons as a health hazard for humans

December 2005 - *Annals of Applied Biology* 147(2):203 - 210

DOI: 10.1111/j.1744-7248.2005.00029.x

 Daniel Haag-Wackernagel

Feral pigeons live in almost every large city in the world. The feeding of pigeons by humans, deliberately or accidentally, allows the build-up of large populations that can cause a variety of problems, primarily the fouling of buildings and monuments by their droppings. Excreta of wild birds are a well-known source of pathogenic microorganisms that can cause infection in man. The most important ectoparasites of feral pigeons are the red blood mite, *Dermanyssus gallinae*, and the pigeon tick, *Argas reflexus*, both of which can migrate into human living space when they lose their natural hosts. The bites of the red blood mite are irritating but harmless, whereas the pigeon tick can cause severe health problems to predisposed persons. After repeated bites from *A. reflexus*, people can develop IgE-mediated (type I) allergy, which in extreme situations may lead to life-threatening symptoms of anaphylactic shock. So far, one fatality due to *A. reflexus* deriving from feral pigeons has been reported. In the case of parasitic infestations of humans, the source must be removed by excluding pigeons from further breeding and by disinfection of the environment of pigeon-breeding sites.



MA NON SI DIMENTICHI....



Il mondo relativo hai piccioni è molto sfaccettato.....



GRAZIE
dell'attenzione



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