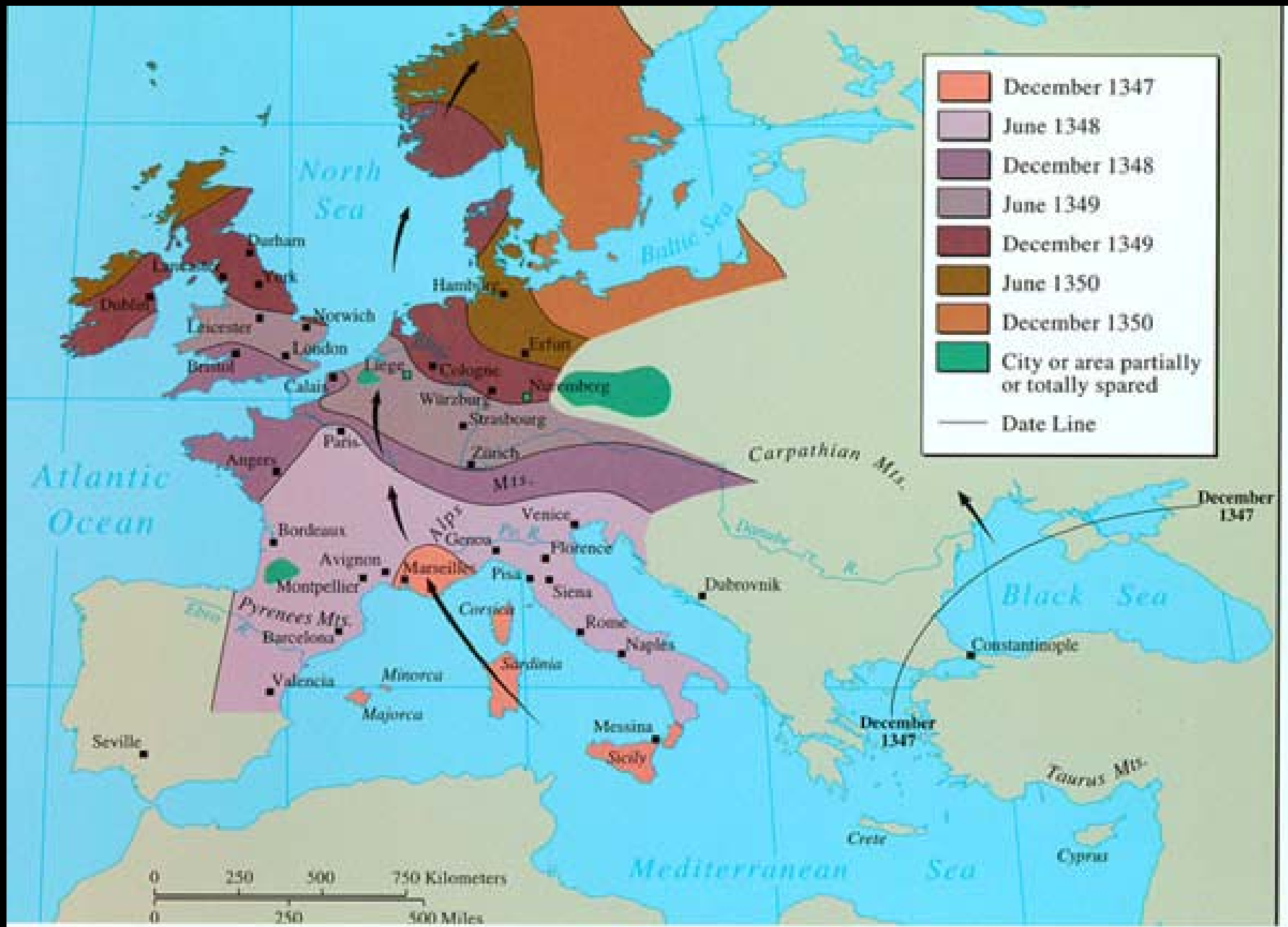


Plague

The Black Death





15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100



15th Century Plague Physician

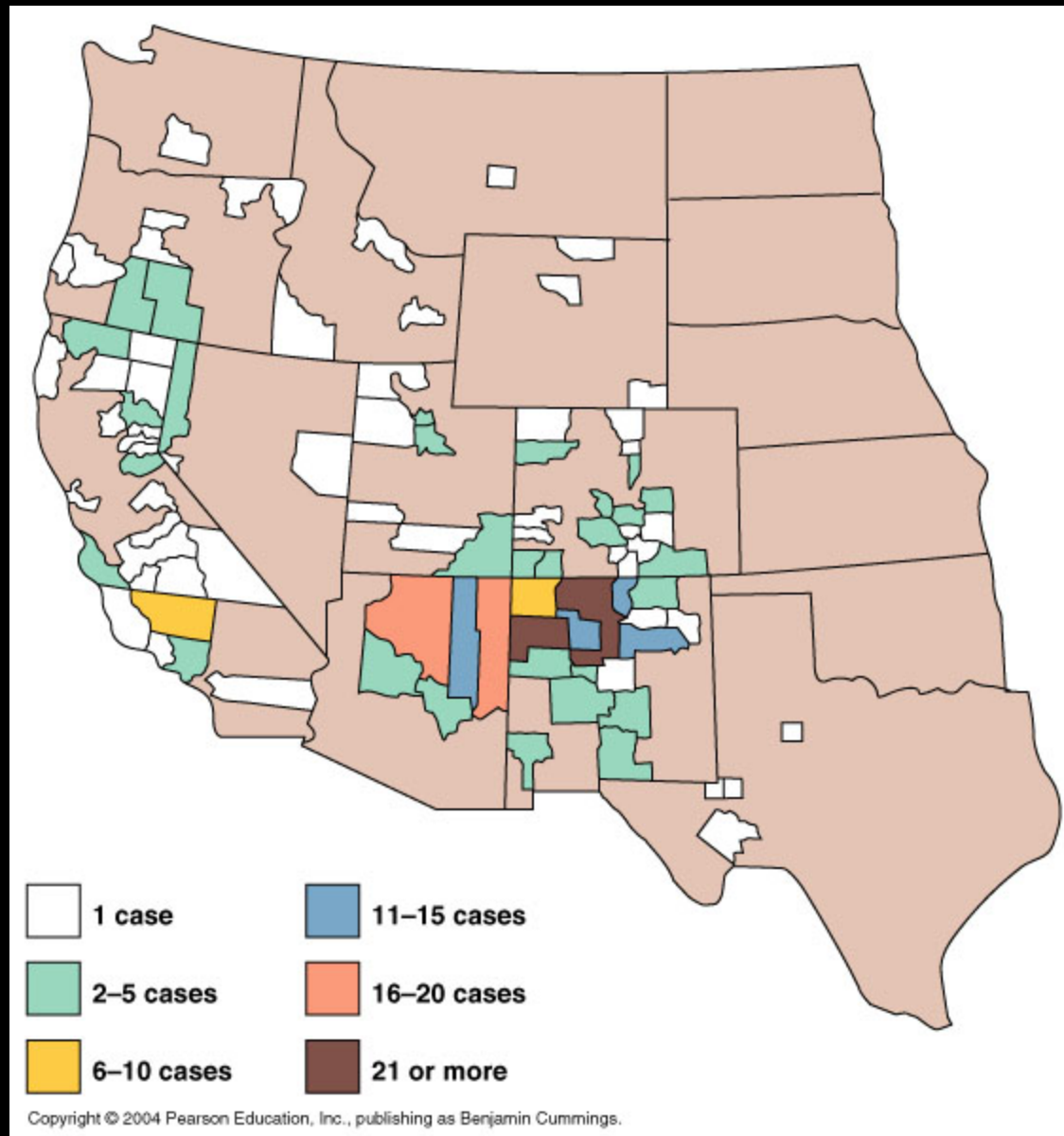




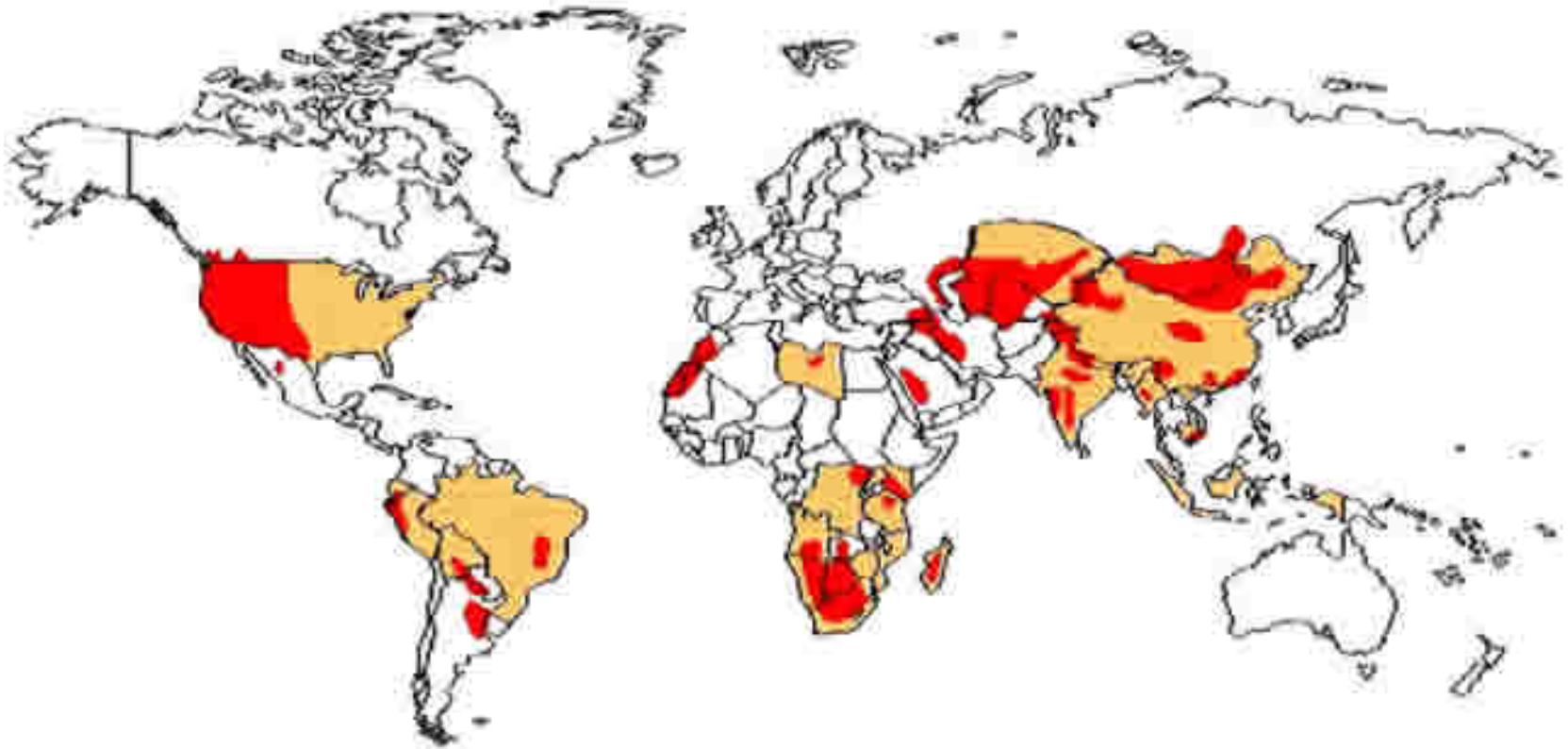
The Flagellants





Plague – endemic in the SW USA



World Distribution of Plague, 1998



-  Countries reported plague, 1970-1998.
-  Regions where plague occurs in animals.



Progression of Plague





Large axillar bubo





Septic Plague: bleeding under the skin causing diffuse rash, discoloration - This is why the disease was called the Black Death

Lymphangitis- a sign of sepsis



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Diffuse erythema



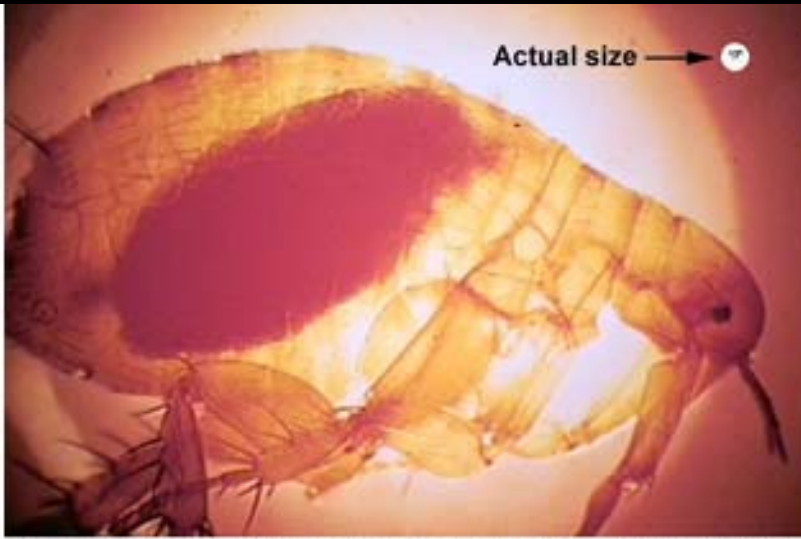
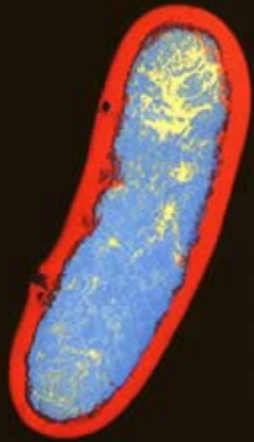


Image: *Xenopsylla cheopsis* (oriental rat flea) engorged with blood





*Plague
bacteria in blood
smear. Note safety pin
appearance.*

A. PLAGUE

- 1. CAUSED BY *YERSINIA PESTIS* (GRAM NEG. ENTERIC)**
- 2. TRANSMITTED FROM FLEA BITE (FROM RHODENTS)**
- 3. TWO TYPES: BUBONIC & PNEUMONIC**
- 4. ENDEMIC IN SW UNITED STATES**
- 5. TREATMENT WITH TETRACYCLINES**

B. BUBONIC PLAGUE

- 1. BACTERIA TRAVEL UP LYPHATICS TO REGIONAL LYMPH NODES**
- 2. OFTEN SEVERE LYMPHADENITIS**
- 3. DISEASE MAY RESOLVE**
- 4. INVADE BLOOD STREAM**

C. PNEUMONIC PLAGUE

- 1. BACTERIA INVADE CAPILLARIES OF THE LUNGS**
- 2. CAUSE A PNEUMONITIS**
- 3. HIGHLY INFECTIOUS BY THE RESPIRATORY ROUTE**

PLAGUE

D. SEPTICEMIC PLAGUE

1. BACTERIA IN THE BLOOD

2. GRAM NEGATIVE ROD

3. SEPSIS

a. TOXIC REACTION TO SEPTICEMIA

b. ENDOTOXIC SHOCK - GRAM NEGATIVES

DUE TO RAPID RELEASE OF CYTOKINES

1. DISSEMINATED INTRAVASCULAR
COAGULATION (DIC)

2. VASODILATION - LOSS OF FLUIDS

3. FEVER & CHILLS

4.



