



EUCAST

European Committee
on Antimicrobial
Susceptibility Testing

Pseudomonas non- aeruginosa

Calibration of zone diameter breakpoints to MIC values

Version 8.4
January 2026

Pseudomonas non-aeruginosa

MIC and zone diameter correlates

- The following histograms present inhibition zone diameter distributions from EUCAST antimicrobial susceptibility testing. In most, the different colours of the bars indicate different MIC values. In some, the colours of the bars indicate a resistance gene or a resistance mechanism.
- The distributions include data for wild-type isolates and for isolates with acquired resistance mechanisms. A large number of isolates with MIC values close to the edge of the wild-type distribution and/or close to EUCAST clinical breakpoints were intentionally included. These distributions can not be used to infer resistance rates or the performance of the tests with routine isolates.
- For some agents, isolates were tested on more than one occasion, including parallel tests with disks and media from several manufacturers. When this is the case, data are presented as both the “number of isolates tested” and the “total number of MIC-zone diameter correlates”, including replicate tests and parallel tests with disks and media from different sources.

Pseudomonas non-aeruginosa

Materials and methods

- Antimicrobial susceptibility testing was performed on clinical isolates of *Pseudomonas non-aeruginosa*. Disk diffusion was performed according to EUCAST methodology and MIC determination was performed with broth microdilution or gradient tests. Species identification was performed with MALDI-TOF MS.
- The distributions of MIC vs. zone diameter in this presentation are the result of a collaboration between EUCAST and JMI Laboratories, North Liberty, USA. These distributions are followed by zone diameter distributions with different species shown as coloured bars
- This presentation is based on EUCAST Clinical Breakpoint Tables v. 16.0.

Changes from previous version (8.3)

Changes
<ul style="list-style-type: none">• No changes. Breakpoints checked against latest version of EUCAST Clinical Breakpoint Tables.

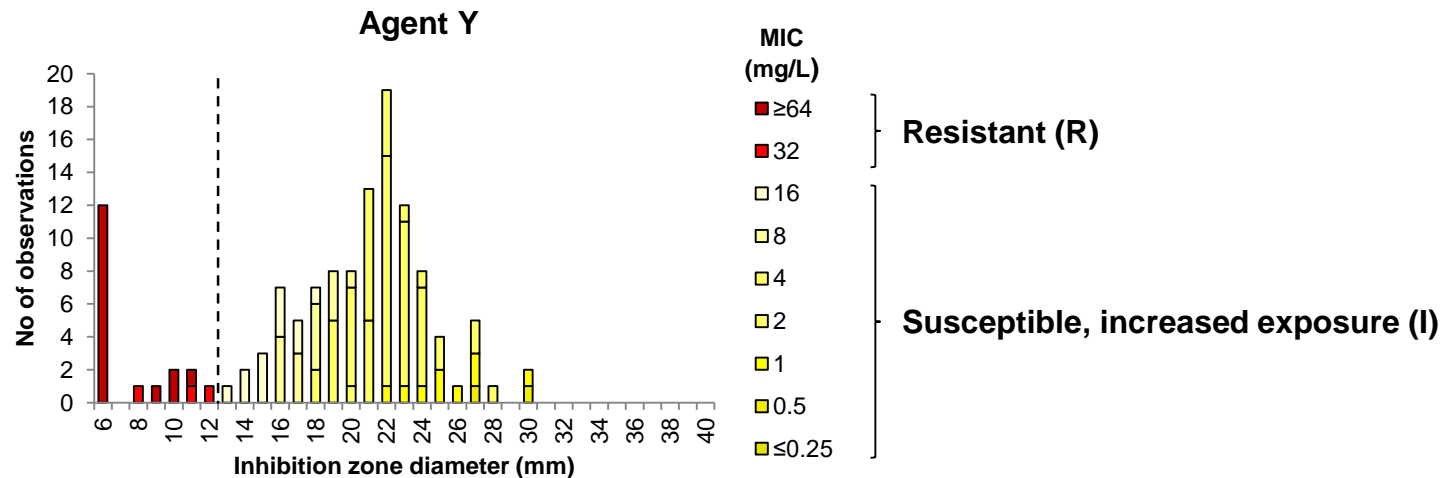
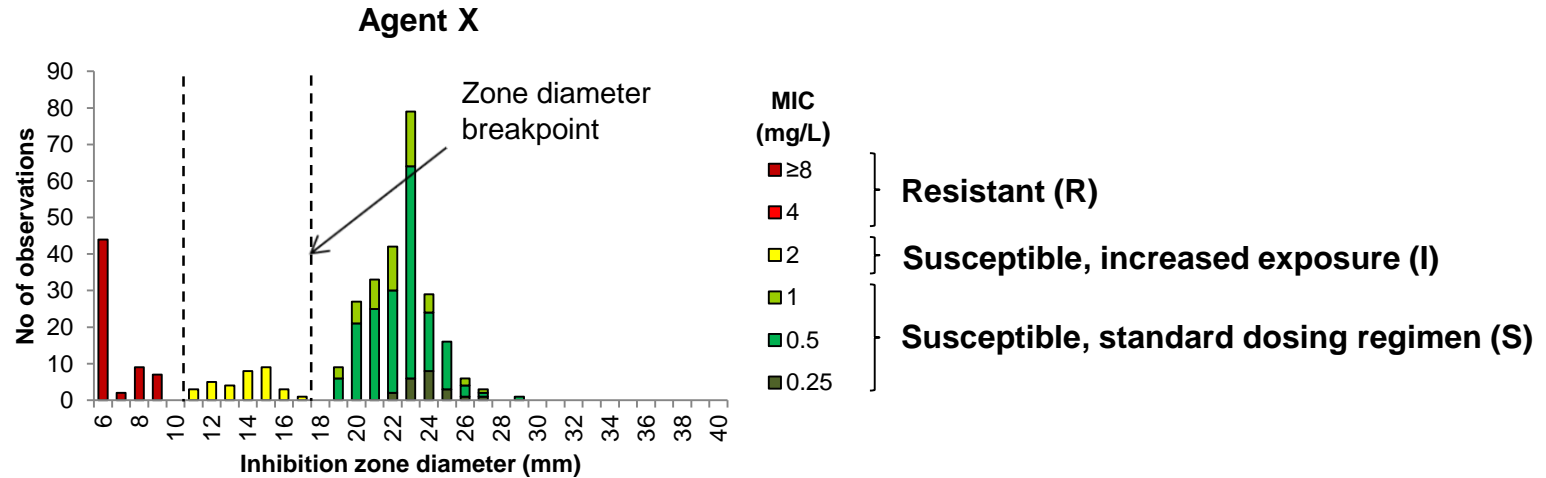
Pseudomonas species according to MALDI-TOF

- 192 clinical isolates:
 - Putida group*: (n=113)
 - P. putida*, *P. oryzihabitans*, *P. monteilii*, *P. mosselii*,
P. plecoglossicida, *P. fulva*.
 - Stutzeri group*: (n=35)
 - P. stutzeri*, *P. luteola*, *P. balearica*
 - Flourescens group*: (n=20)
 - P. flourescens*, *P. synxantha*, *P. libanensis*, *P. azotoformans*,
P. extremorientalis, *P. rhodesiae*, *P. antarctica*.
 - Aeruginosa group*: (n=6)
 - P. mendocina*, *P. oleovorans*.
 - Other*: (n=18)
 - P. chlororaphis*, *P. koreensis*, *P. graminis*, *P. asplenii*

* Classification originally according to Kersters *et al.* (1996) and updated by Anzai *et al.* (1997, 2000). *P. extremorientalis* added by Ivanova *et al.* (2002) and *P. antarctica* by Reddy *et al.* (2004).

Explanation of graphs:

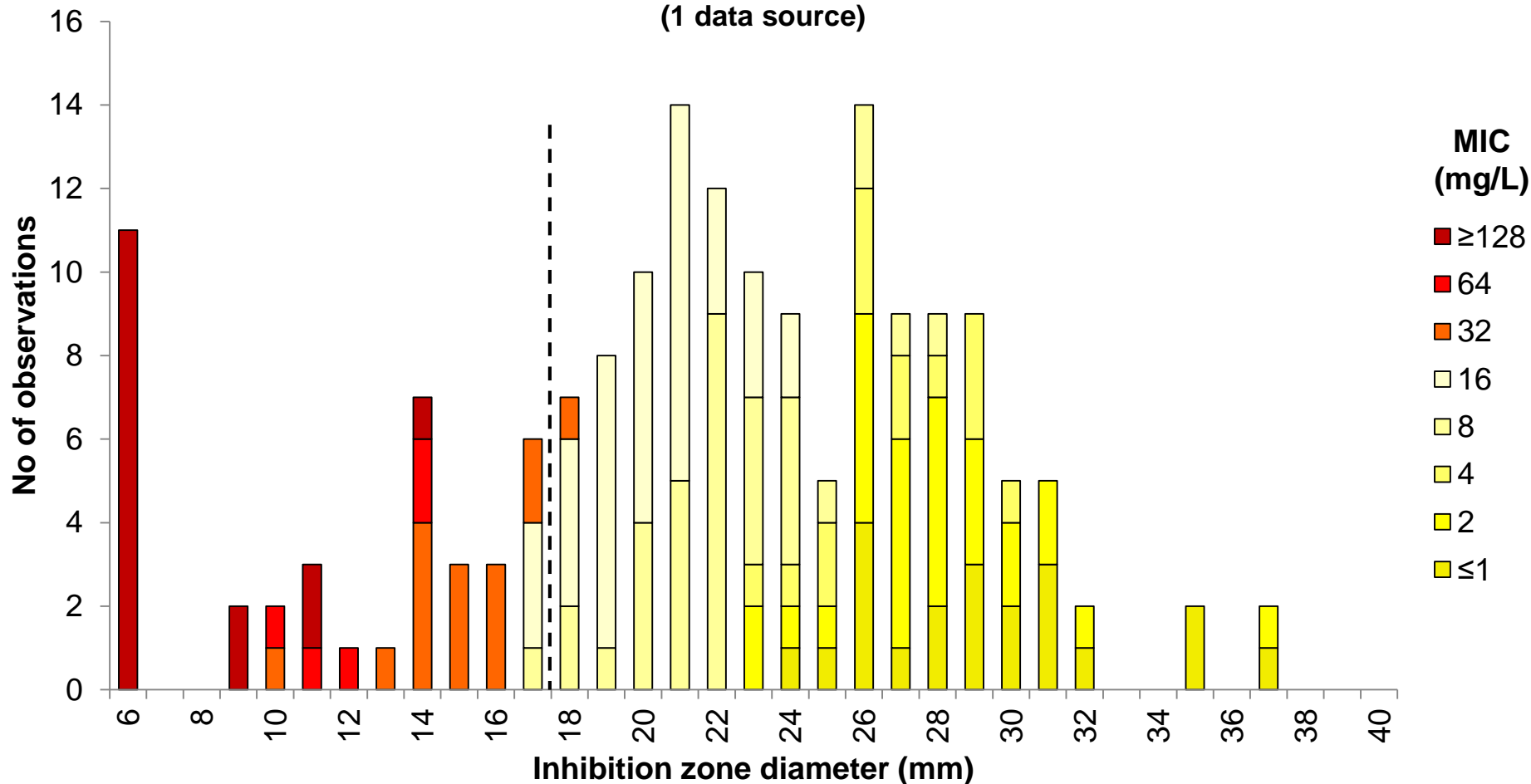
- These graphs show zone diameter distributions with MIC values or resistance mechanisms as coloured bars. Colours are related to current EUCAST MIC breakpoints.



Piperacillin 30 µg vs. MIC

Pseudomonas non-aeruginosa, 171 isolates

(1 data source)



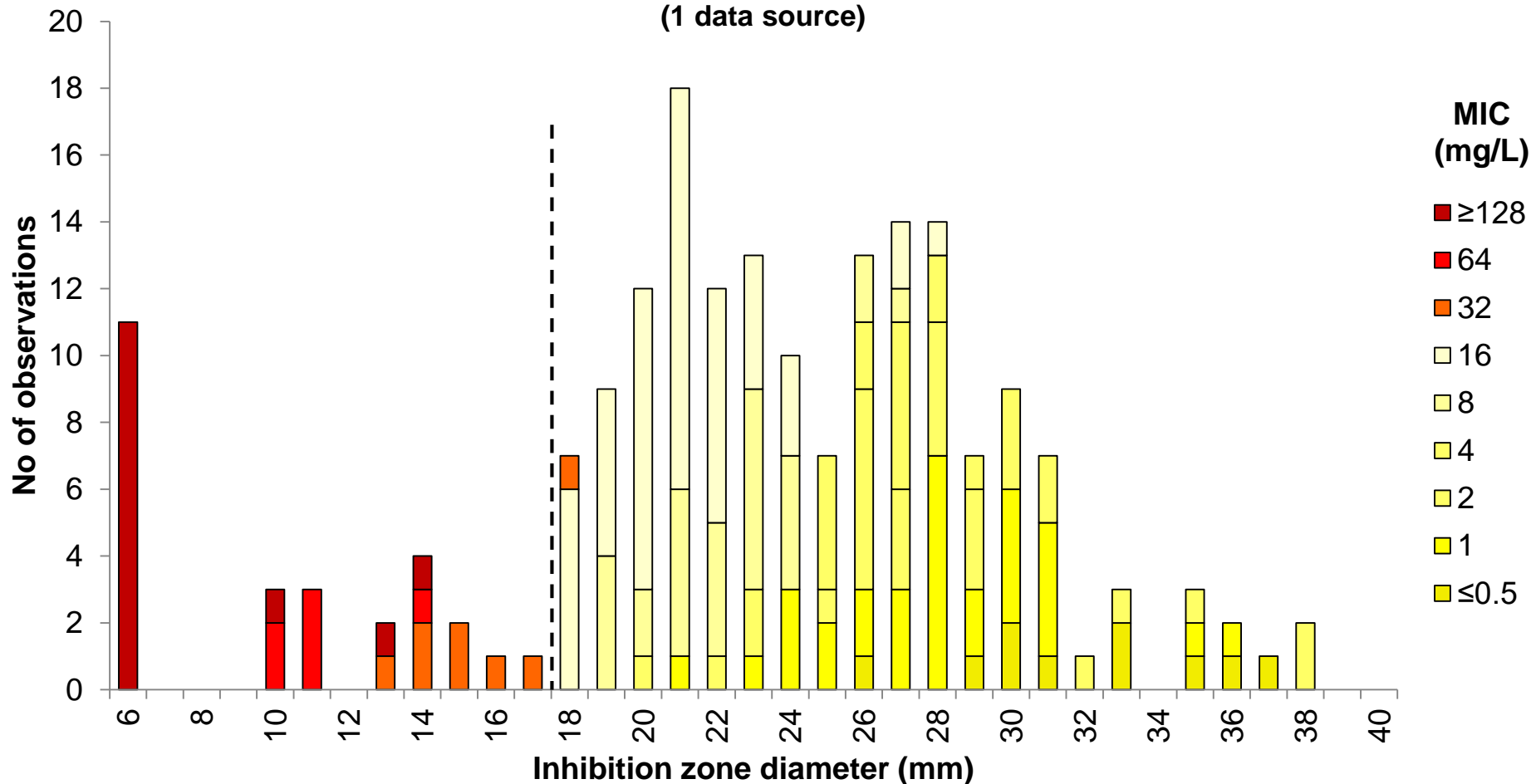
Breakpoints

MIC $S \leq 0.001$, $R > 16$ mg/L

Zone diameter $S \geq 50$, $R < 18$ mm

Piperacillin-tazobactam 30-6 μg vs. MIC *Pseudomonas non-aeruginosa*, 191 isolates

(1 data source)

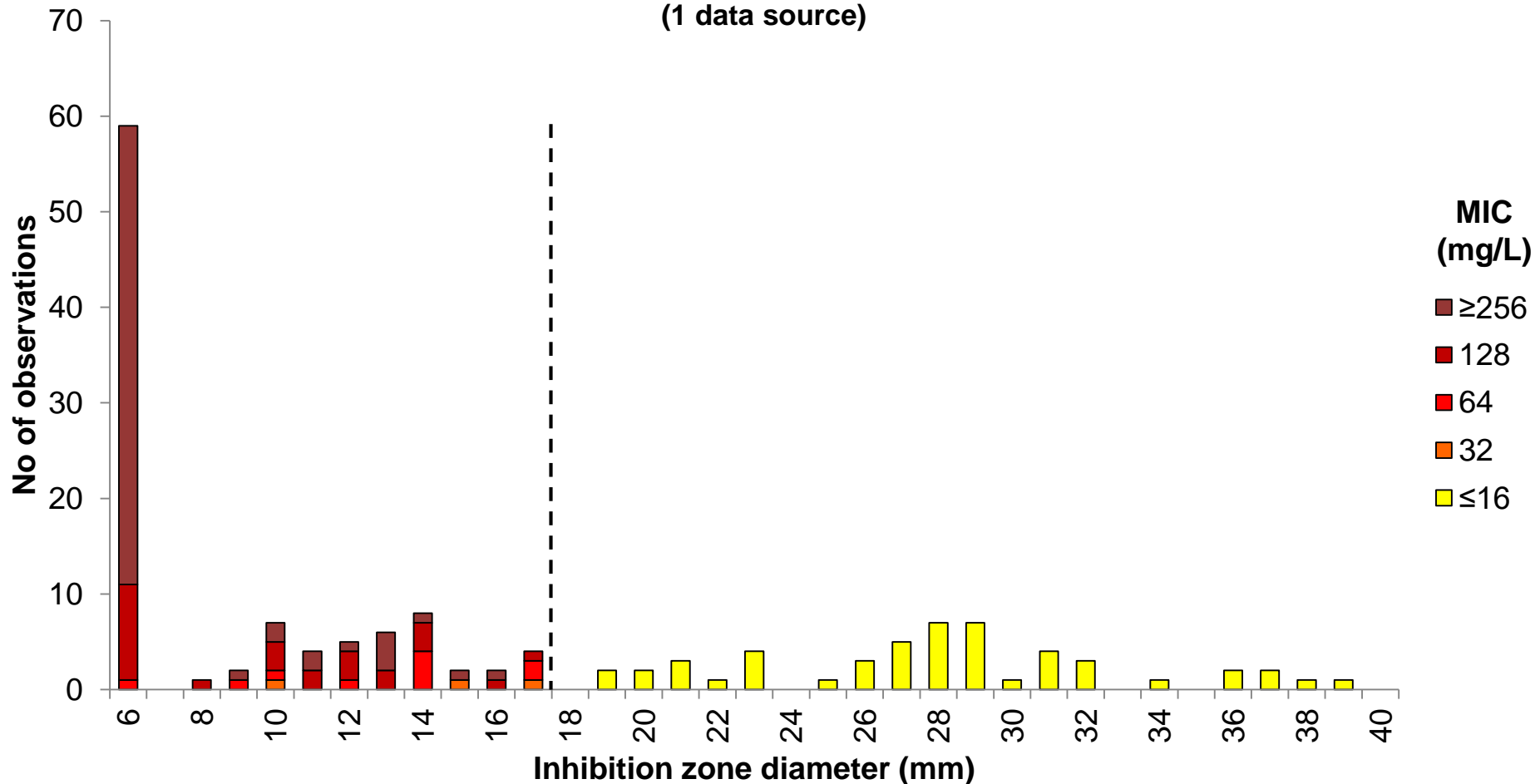


Breakpoints

MIC	$S \leq 0.001$, $R > 16$ mg/L
Zone diameter	$S \geq 50$, $R < 18$ mm

Ticarcillin-clavulanic acid 75-10 µg vs. MIC *Pseudomonas non-aeruginosa*, 150 isolates

(1 data source)



Breakpoints

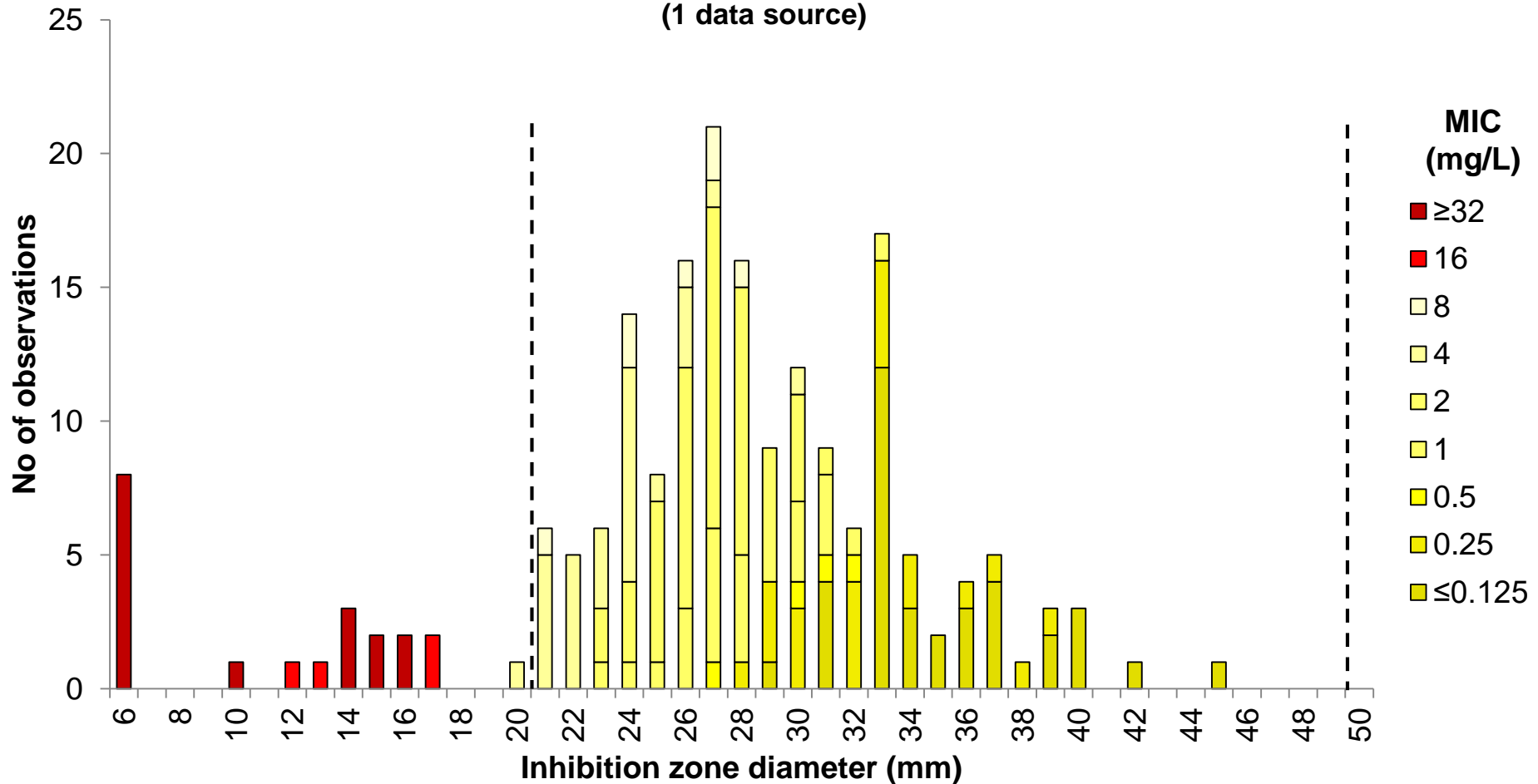
MIC $S \leq 0.001$, $R > 16$ mg/L

Zone diameter $S \geq 50$, $R < 18$ mm

Cefepime 30 µg vs. MIC

Pseudomonas non-aeruginosa, 191 isolates

(1 data source)



Breakpoints

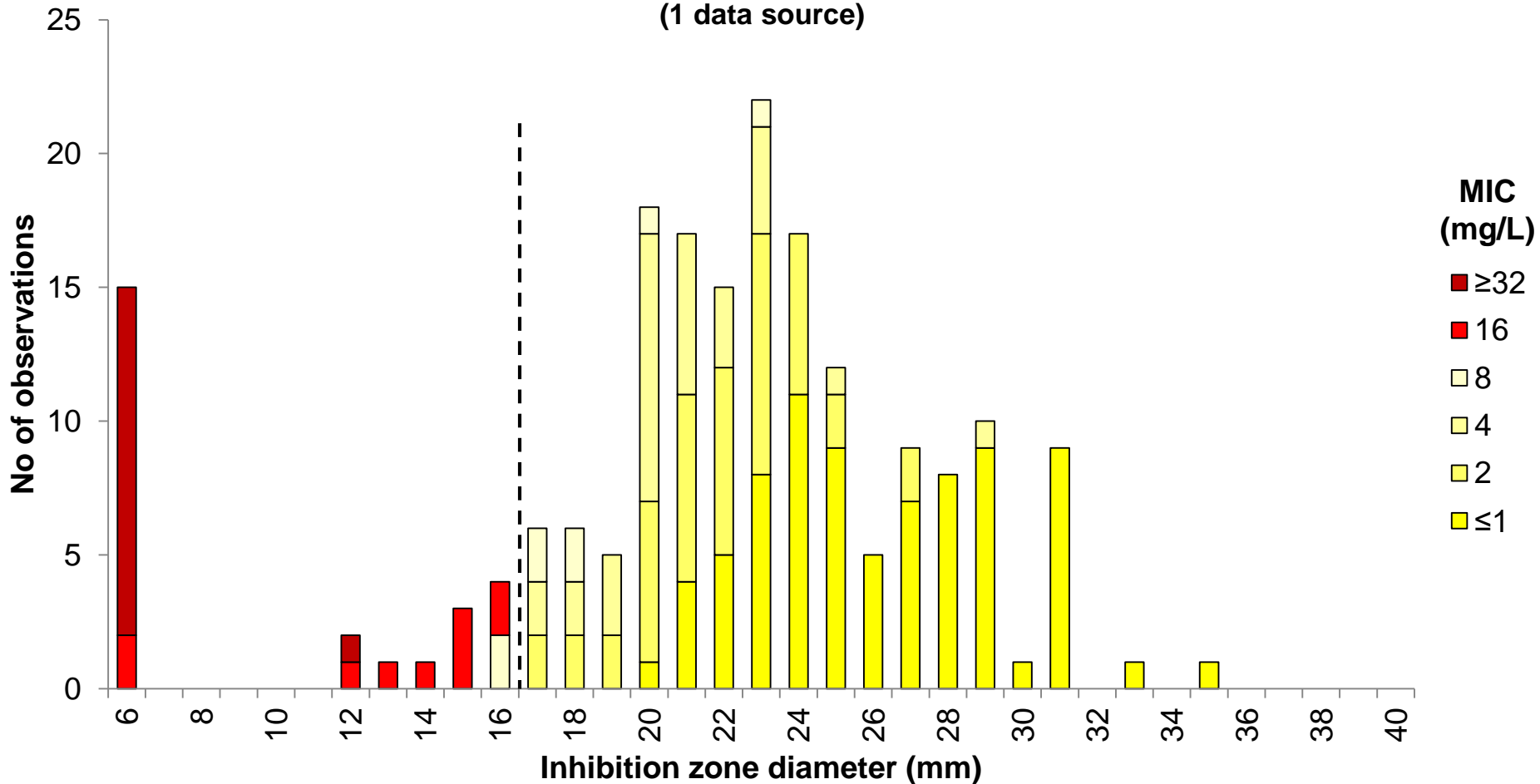
MIC $S \leq 0.001$, $R > 8$ mg/L

Zone diameter $S \geq 50$, $R < 21$ mm

Ceftazidime 10 µg vs. MIC

Pseudomonas non-aeruginosa, 188 isolates

(1 data source)



Breakpoints

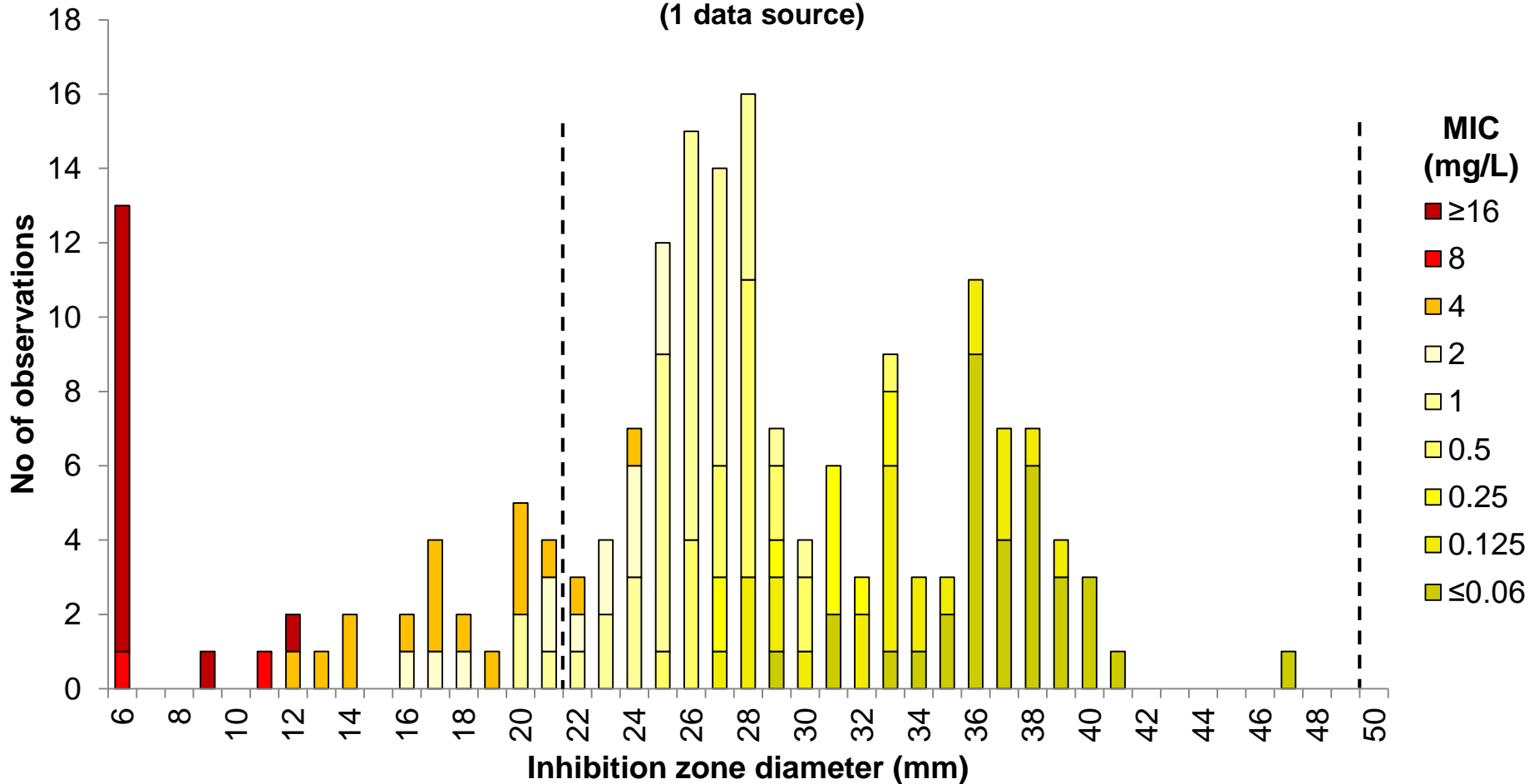
MIC $S \leq 0.001$, $R > 8$ mg/L

Zone diameter $S \geq 50$, $R < 17$ mm

Doripenem 10 µg vs. MIC

Pseudomonas non-aeruginosa, 176 isolates

(1 data source)



Breakpoints

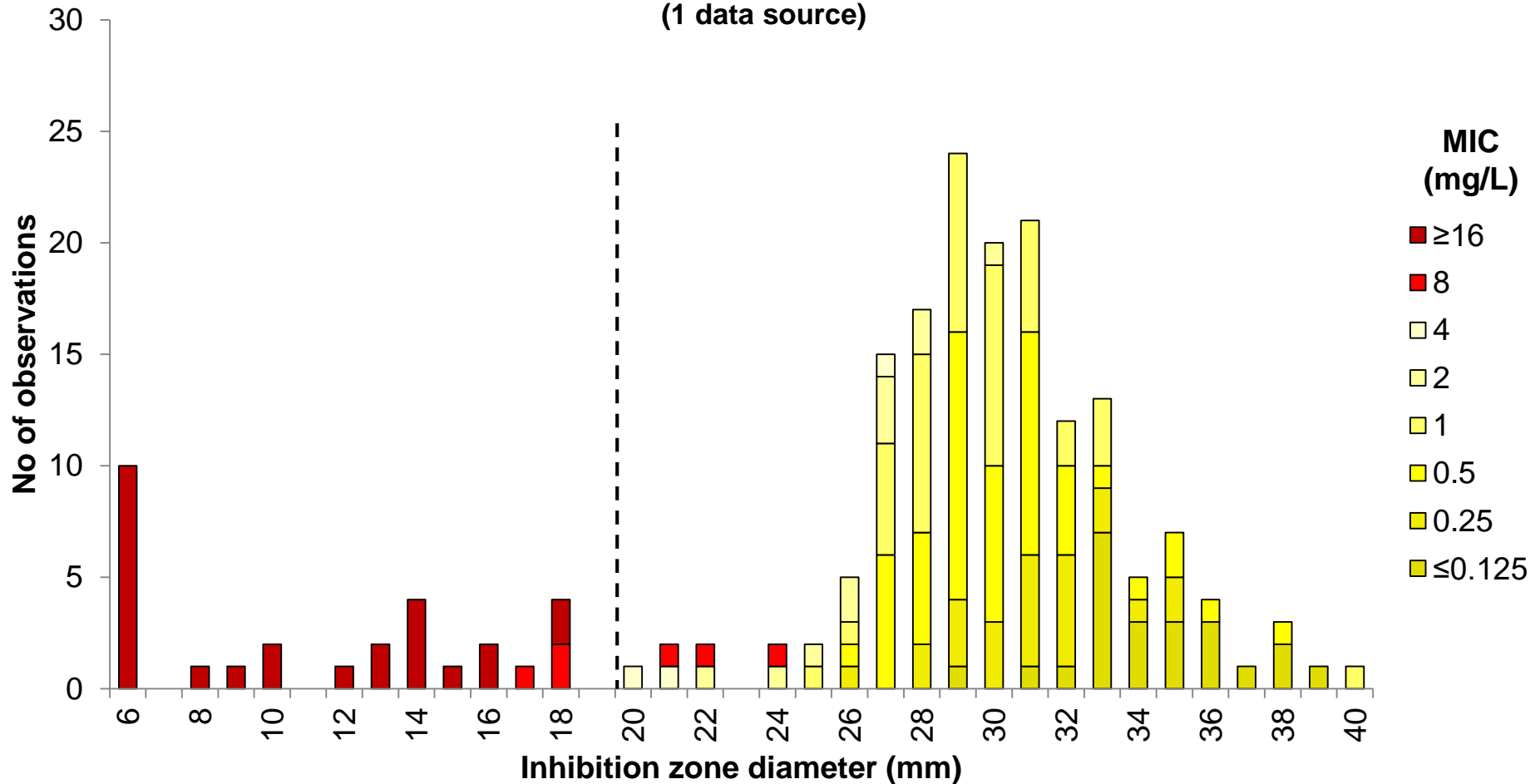
MIC $S \leq 0.001$, $R > 2$ mg/L

Zone diameter $S \geq 50$, $R < 22$ mm

Imipenem 10 µg vs. MIC

Pseudomonas non-aeruginosa, 187 isolates

(1 data source)



Breakpoints

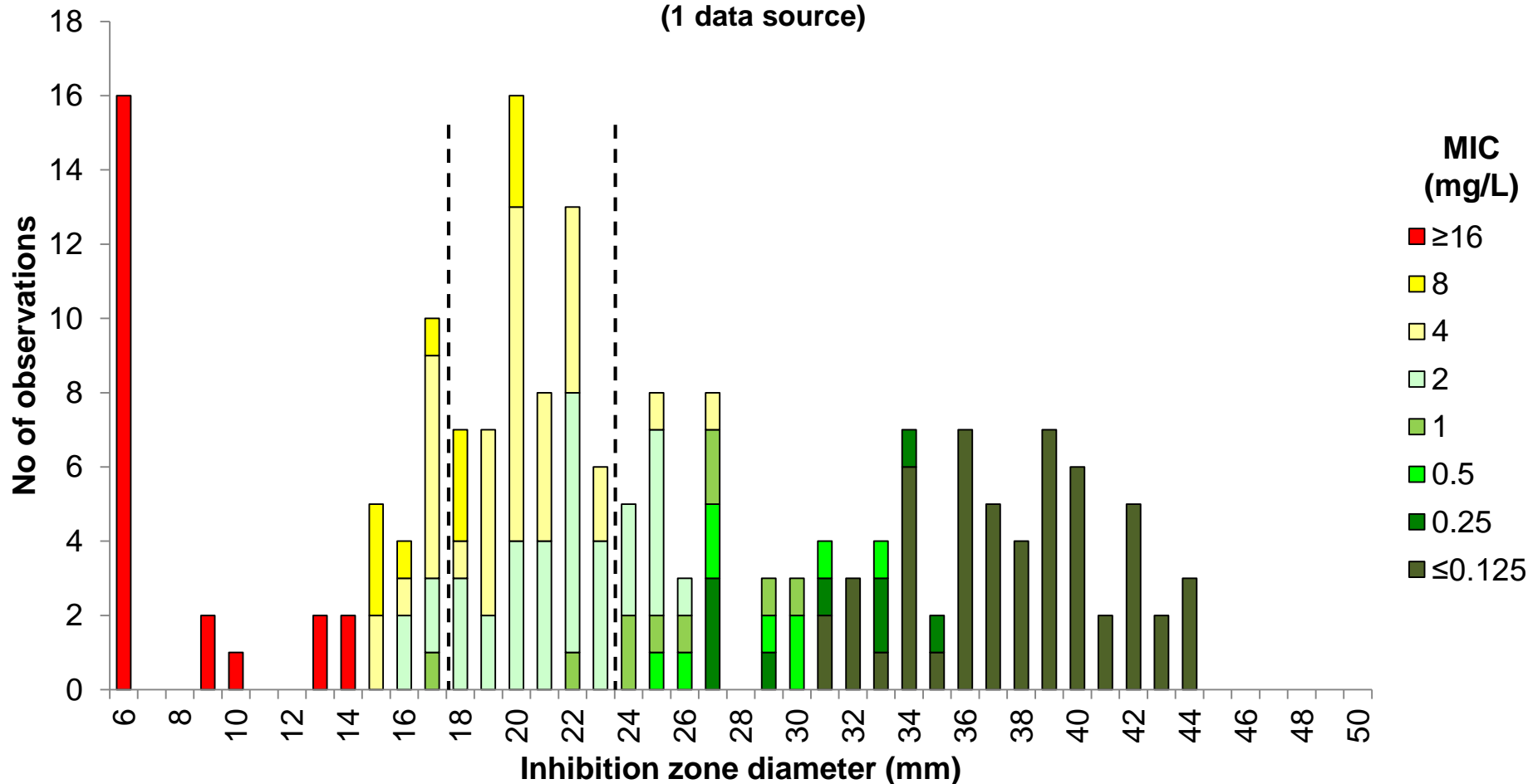
MIC $S \leq 0.001$, $R > 4$ mg/L

Zone diameter $S \geq 50$, $R < 20$ mm

Meropenem 10 µg vs. MIC

Pseudomonas non-aeruginosa, 190 isolates

(1 data source)



Breakpoints (non-meningitis)

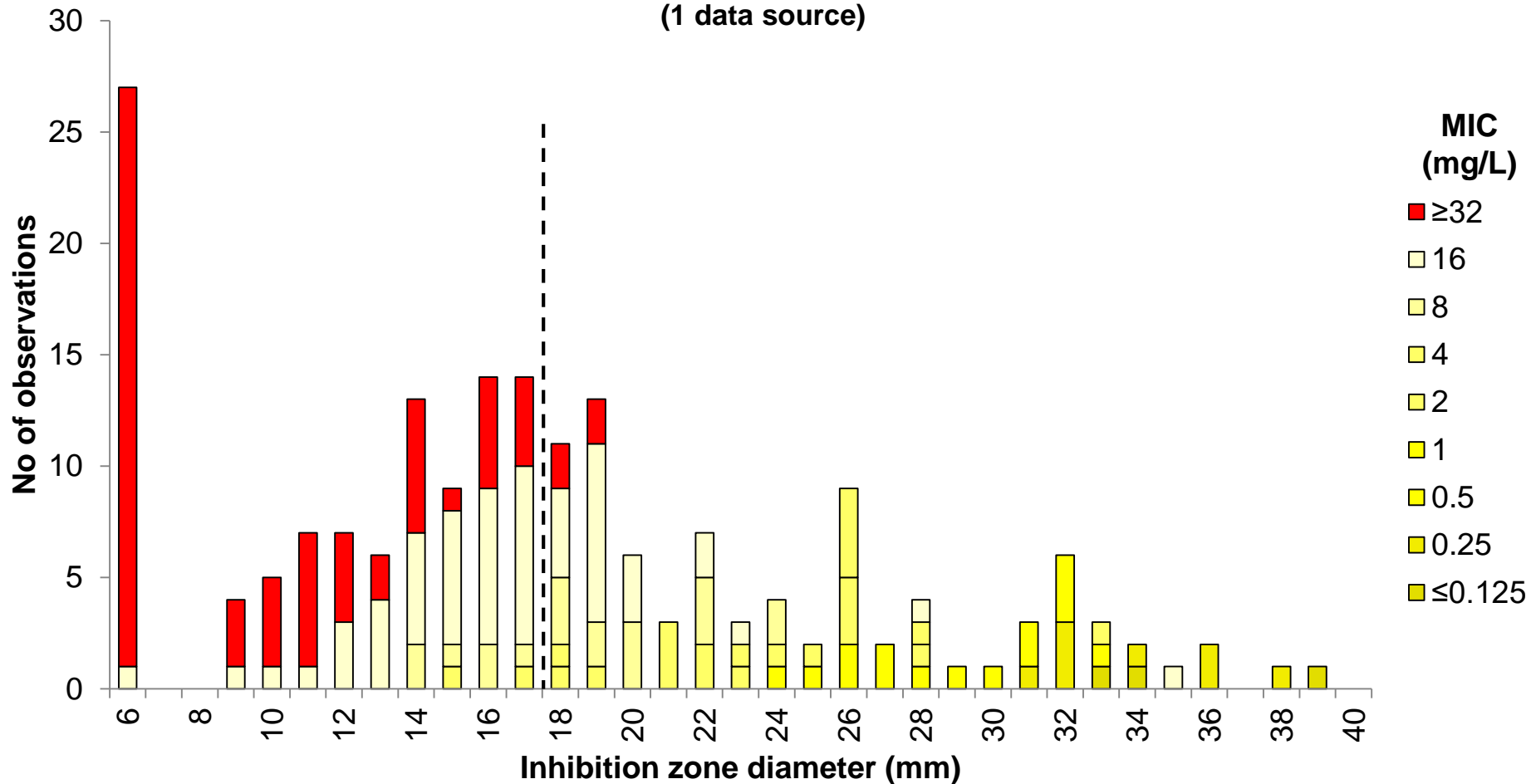
MIC S ≤ 2, R > 8 mg/L

Zone diameter S ≥ 24, R < 18 mm

Aztreonam 30 µg vs. MIC

Pseudomonas non-aeruginosa, 191 isolates

(1 data source)



Breakpoints

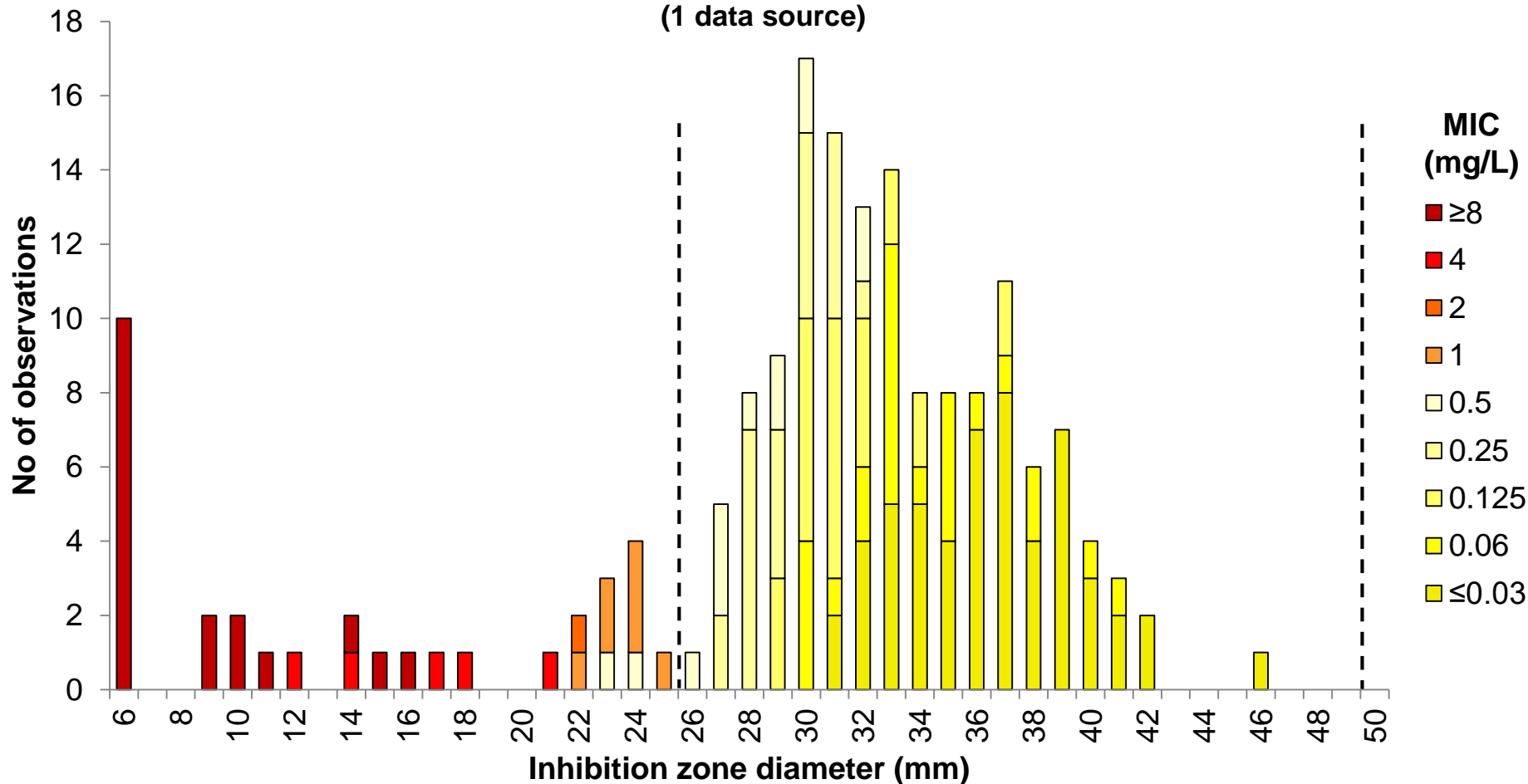
MIC $S \leq 0.001$, $R > 16$ mg/L

Zone diameter $S \geq 50$, $R < 18$ mm

Ciprofloxacin 5 μ g vs. MIC

Pseudomonas non-aeruginosa, 173 isolates

(1 data source)



Breakpoints

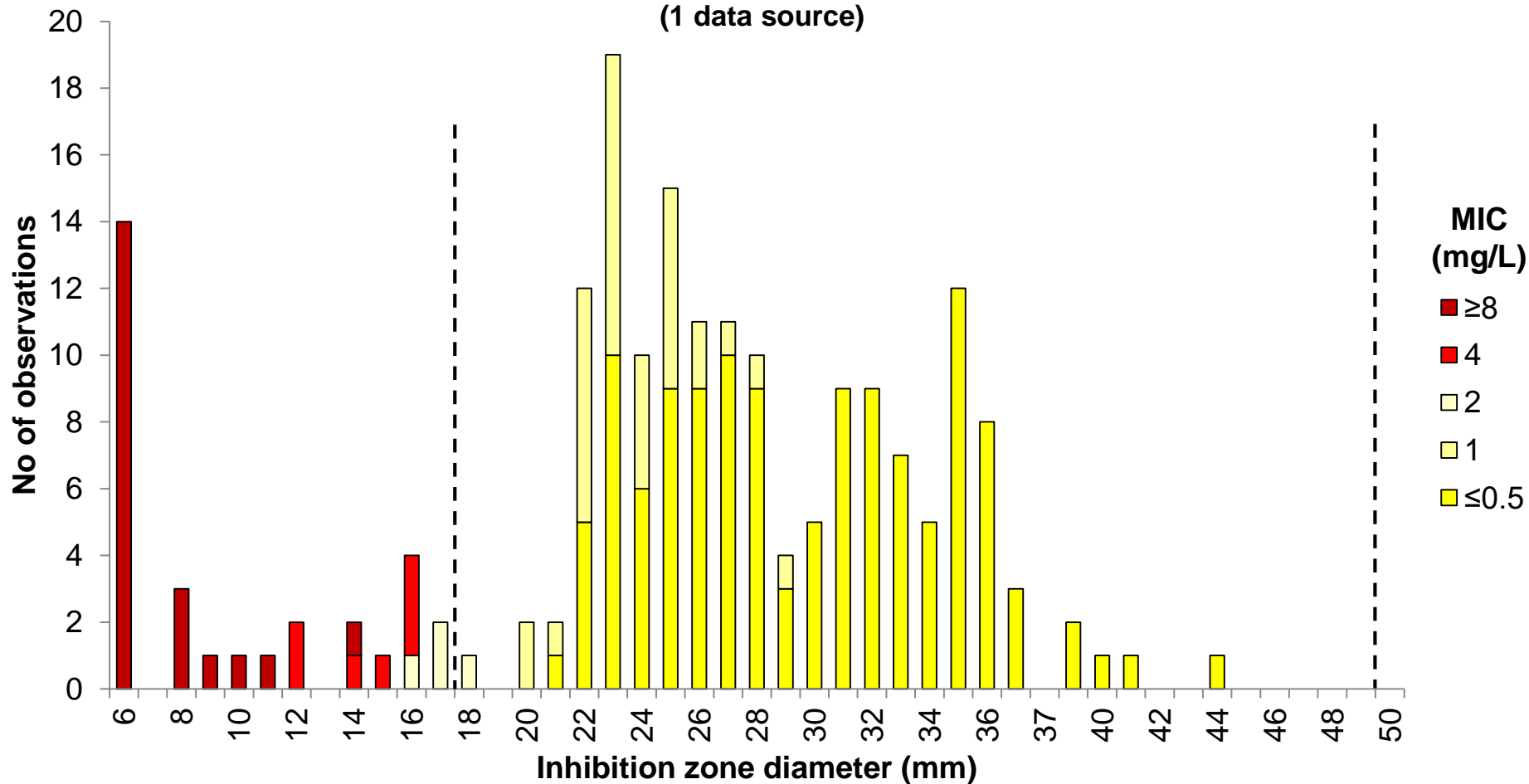
MIC $S \leq 0.001$, $R > 0.5$ mg/L

Zone diameter $S \geq 50$, $R < 26$ mm

Levofloxacin 5 μ g vs. MIC

Pseudomonas non-aeruginosa, 191 isolates

(1 data source)



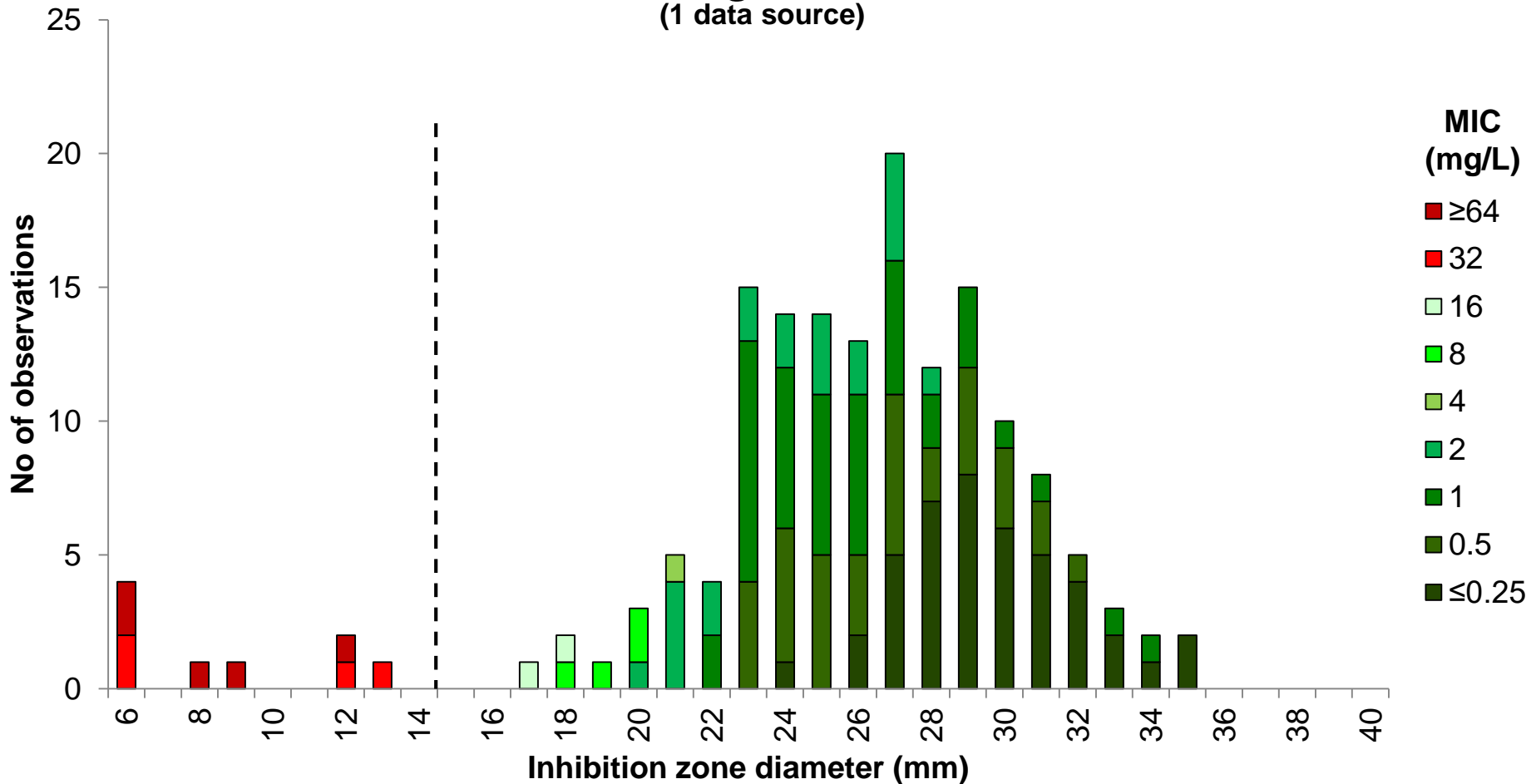
Breakpoints

MIC	$S \leq 0.001$, $R > 2$ mg/L
Zone diameter	$S \geq 50$, $R < 18$ mm

Amikacin 30 μ g vs. MIC

Pseudomonas non-aeruginosa, 158 isolates

(1 data source)



Breakpoints

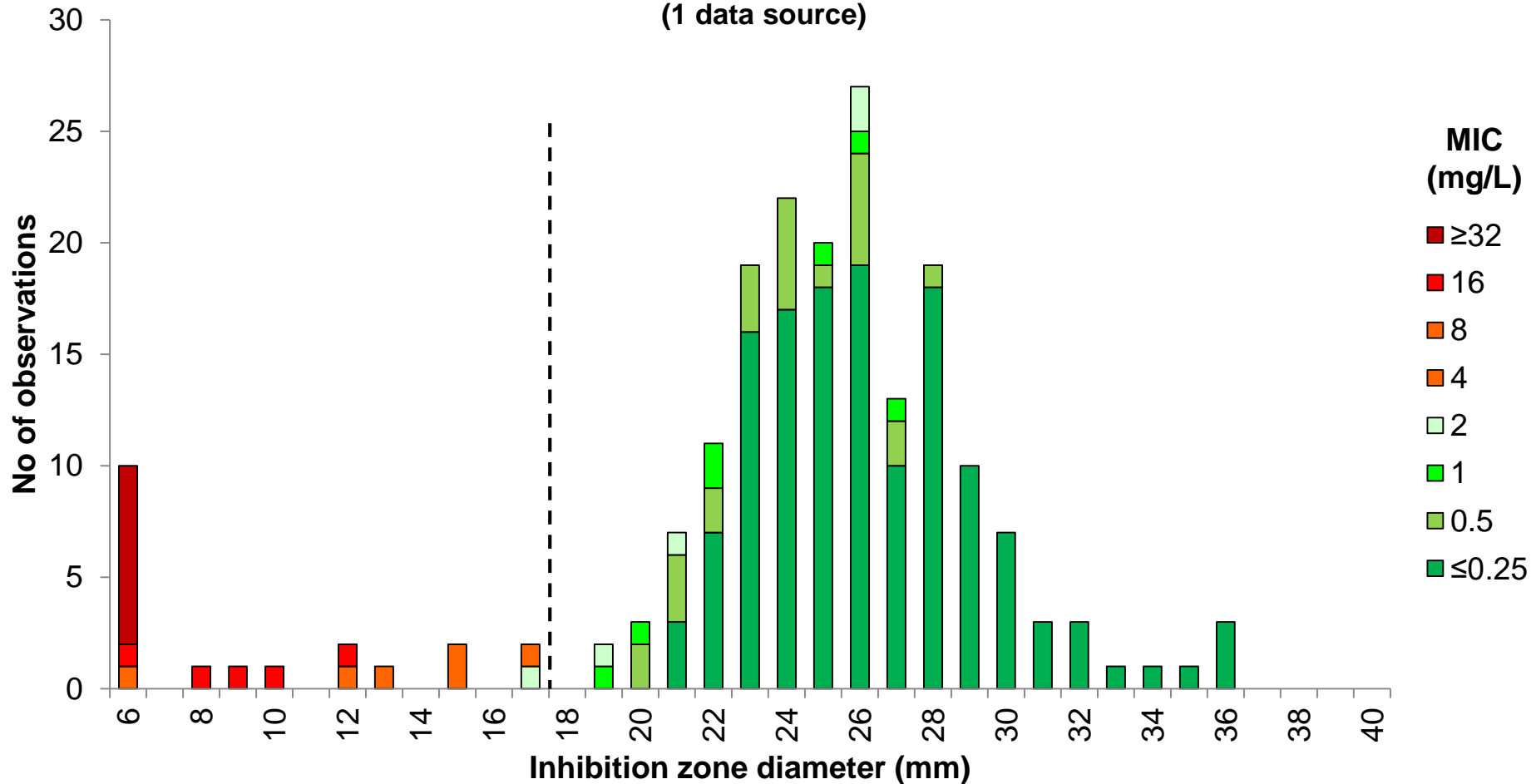
MIC $S \leq 16, R > 16$ mg/L

Zone diameter $S \geq 15, R < 15$ mm

Tobramycin 10 µg vs. MIC

Pseudomonas non-aeruginosa, 192 isolates

(1 data source)



Breakpoints

MIC S ≤ 2, R > 2 mg/L

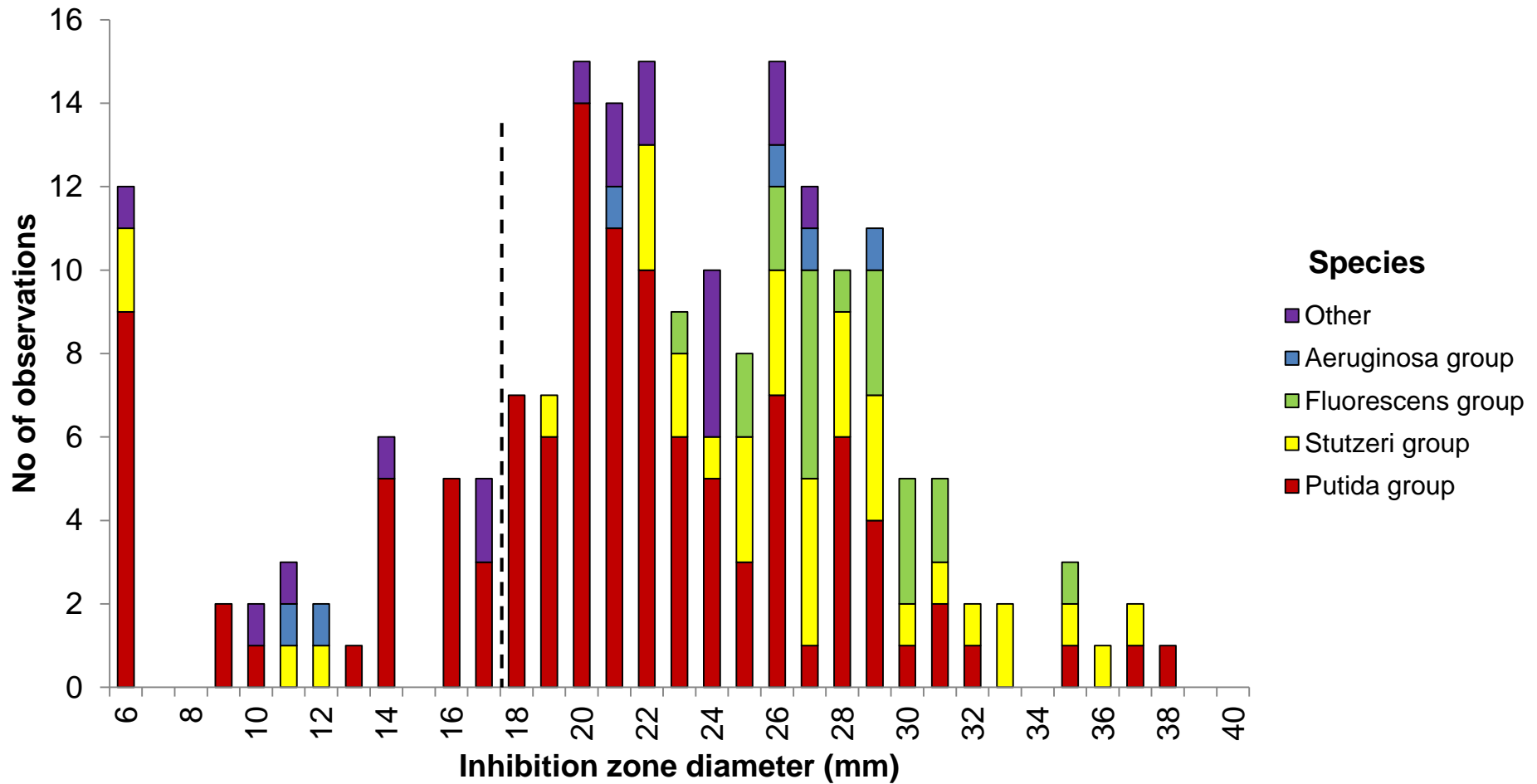
Zone diameter S ≥ 18, R < 18 mm

***Pseudomonas non-
aeruginosa***

Zone diameter distributions vs.
species

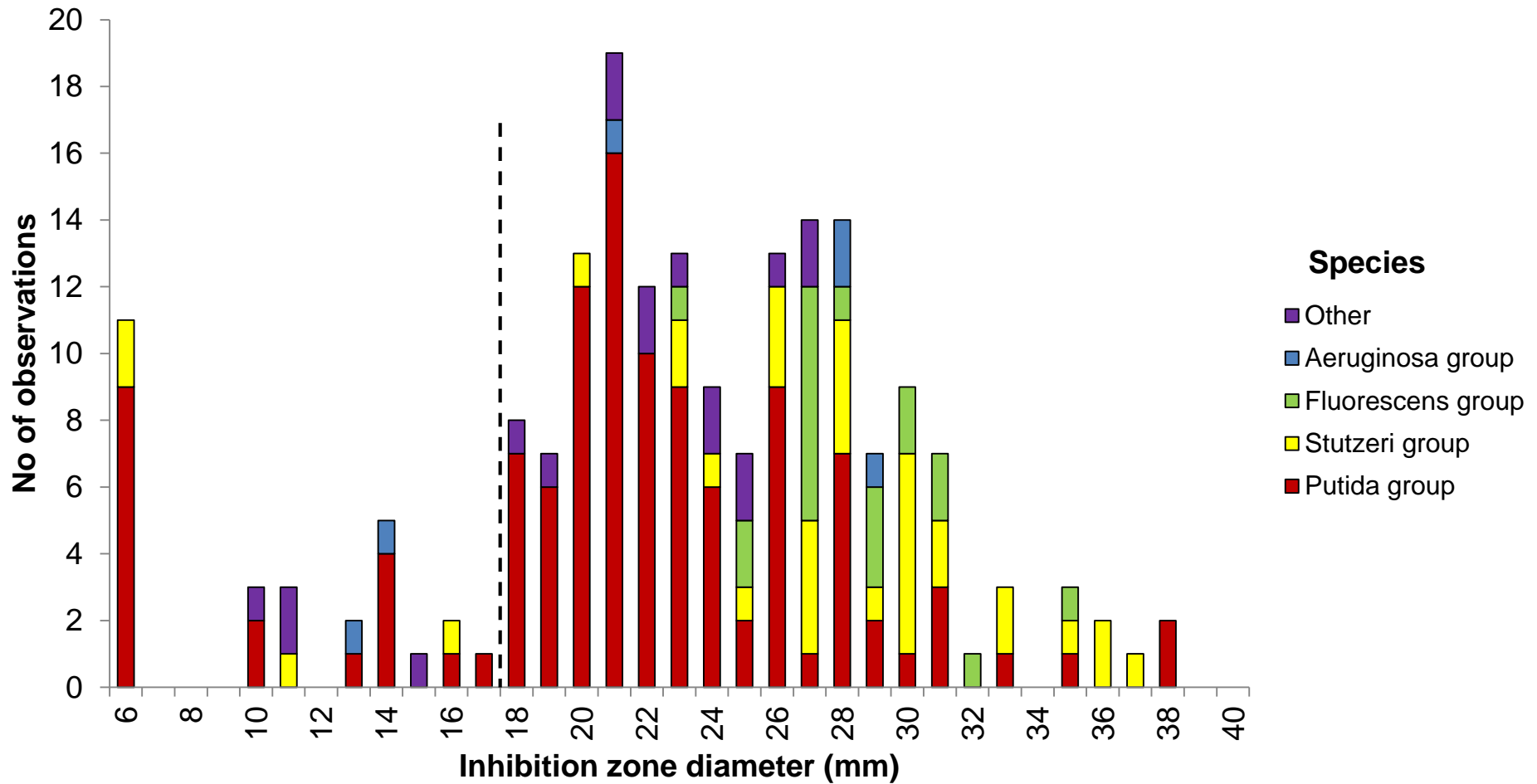
Piperacillin 30 µg vs. species

Pseudomonas non-aeruginosa, 192 isolates



Breakpoints
 Zone diameter $S \geq 50$, $R < 18$ mm

Piperacillin-tazobactam 30-6 µg vs. species *Pseudomonas non-aeruginosa*, 192 isolates

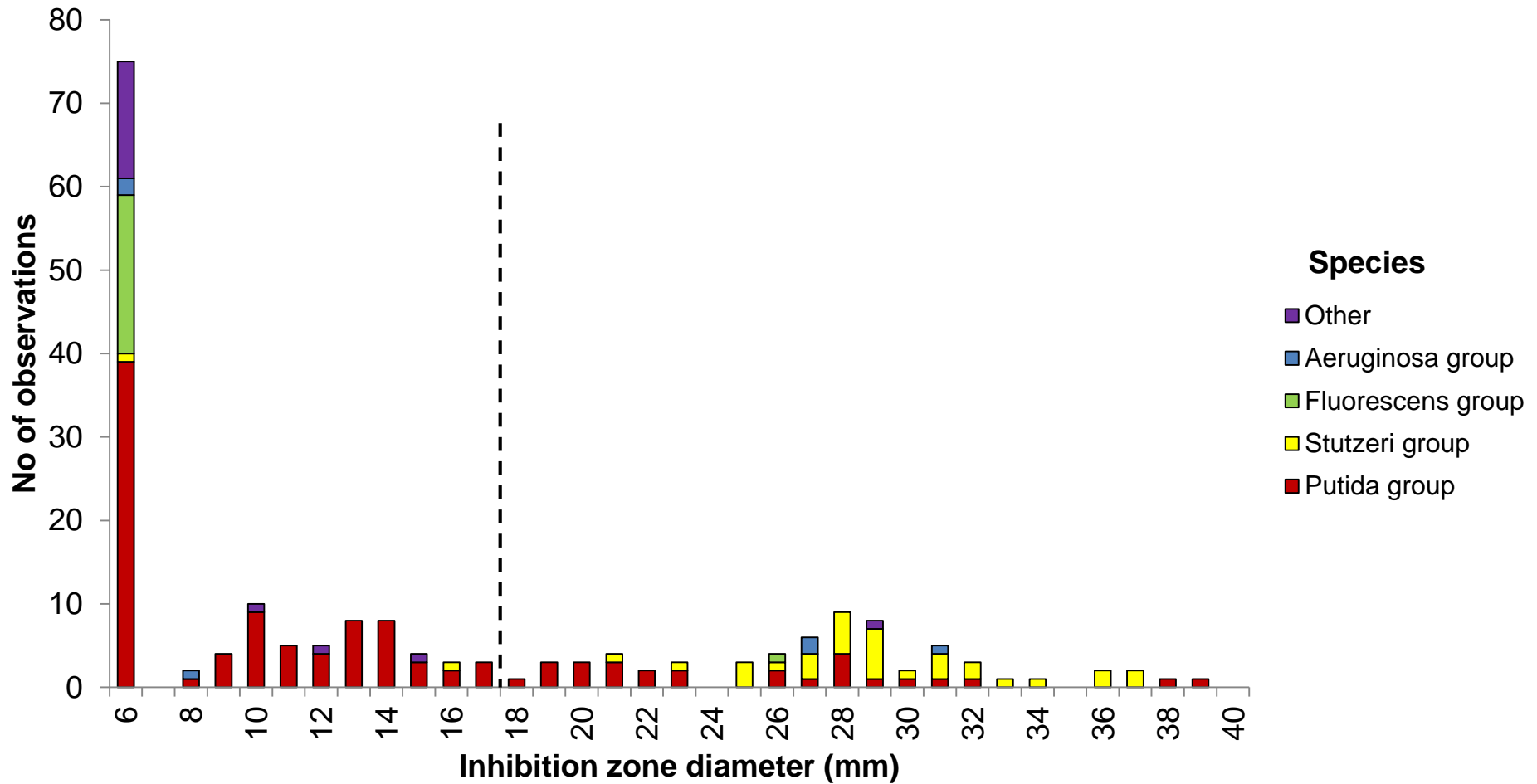


Breakpoints

Zone diameter

$S \geq 50$, $R < 18$ mm

Ticarcillin-clavulanate 75-10 µg vs. species *Pseudomonas non-aeruginosa*, 191 isolates

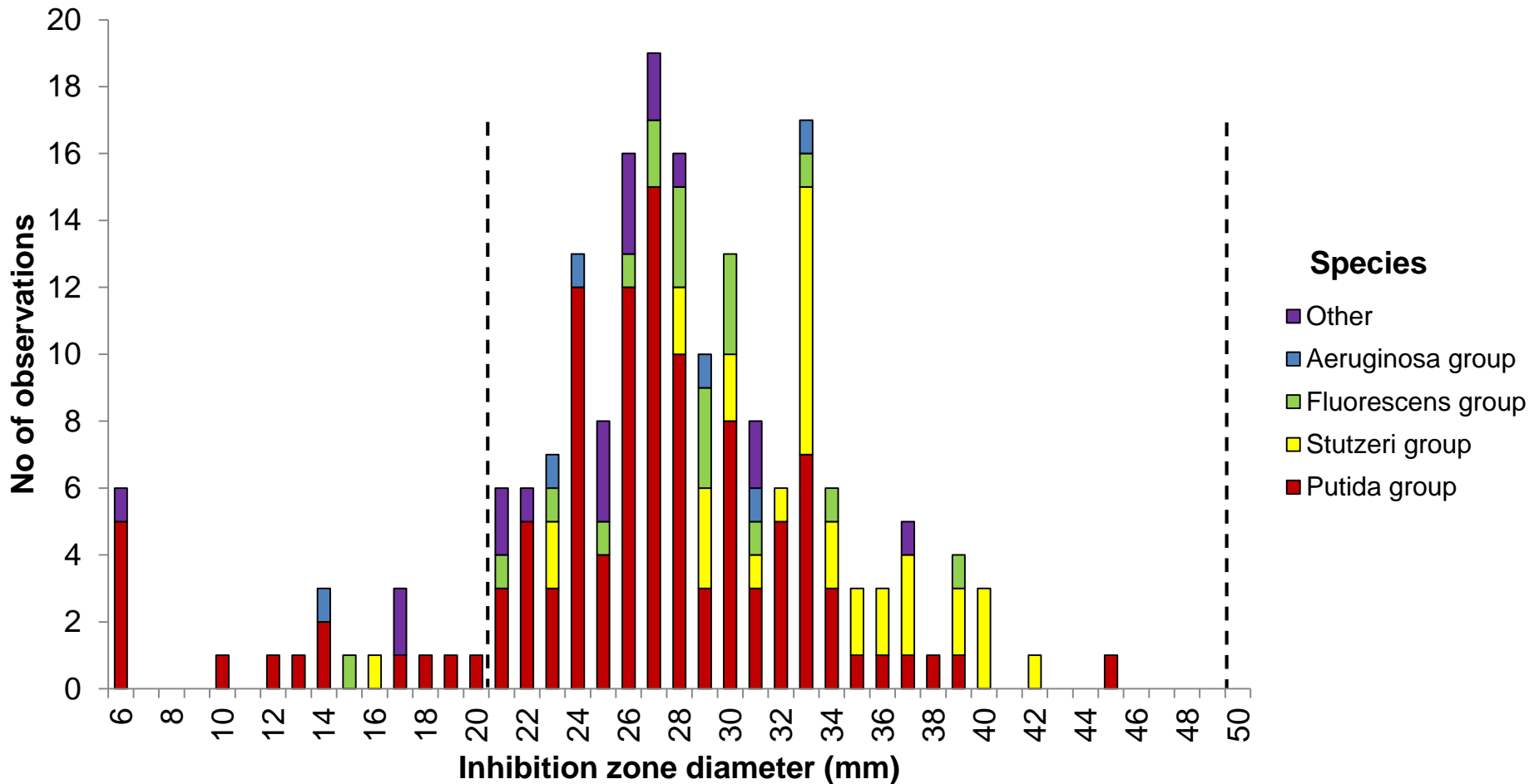


Breakpoints

Zone diameter $S \geq 50$, $R < 18$ mm

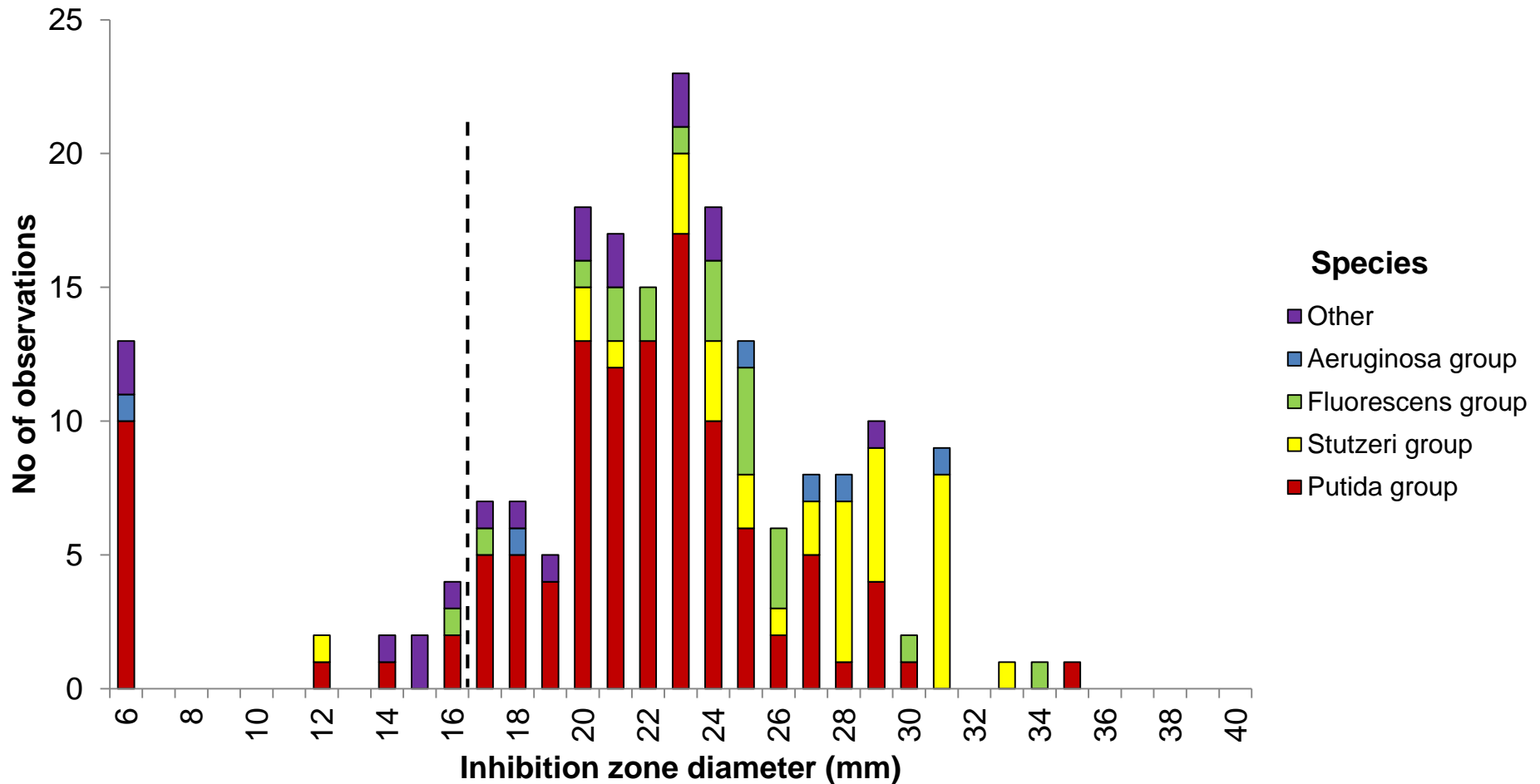
Cefepime 30 μ g vs. species

Pseudomonas non-aeruginosa, 192 isolates



Breakpoints
 Zone diameter $S \geq 50$, $R < 21$ mm

Ceftazidime 10 µg vs. species *Pseudomonas non-aeruginosa*, 192 isolates

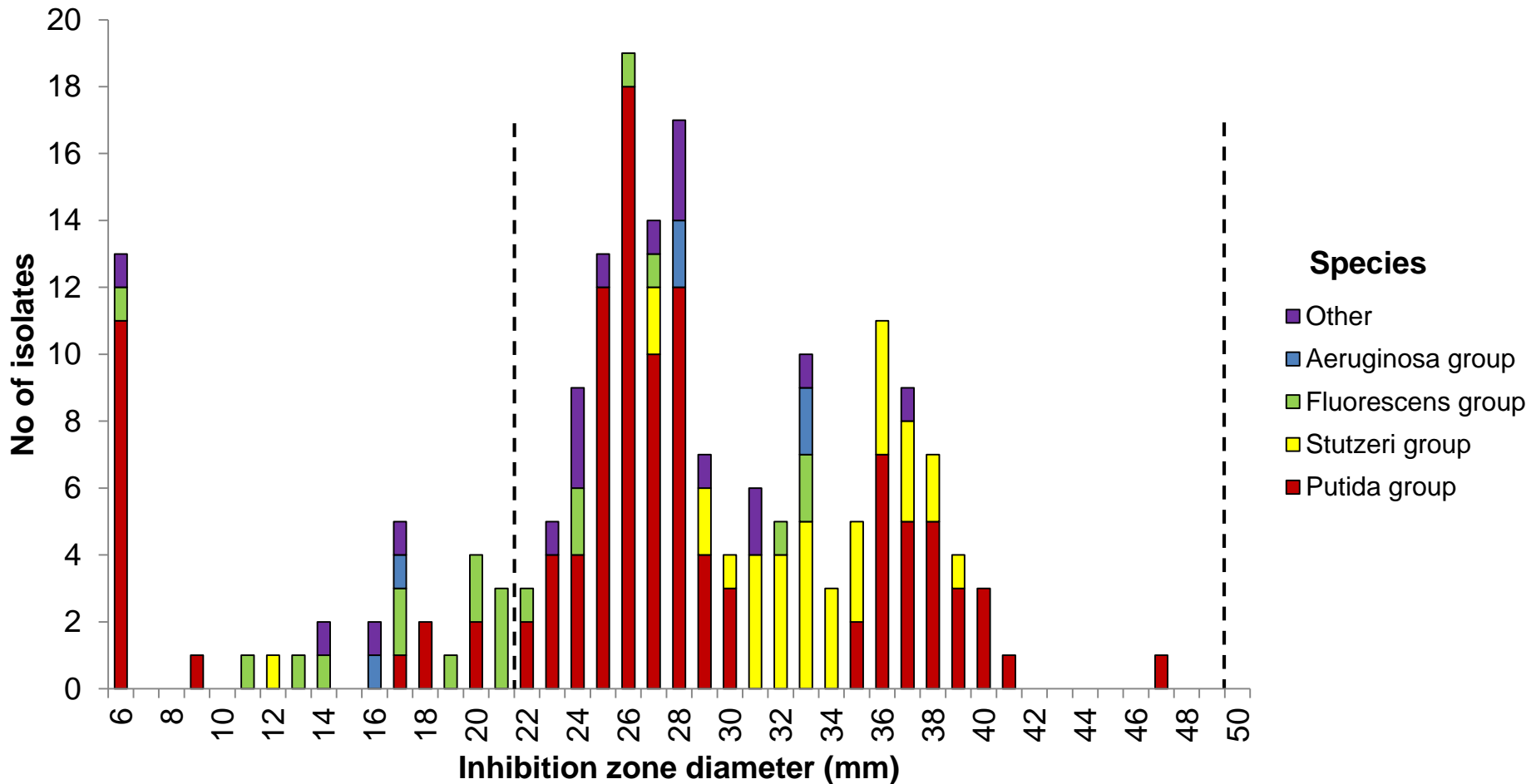


Breakpoints

Zone diameter $S \geq 50$, $R < 17$ mm

Doripenem 10 µg vs. species

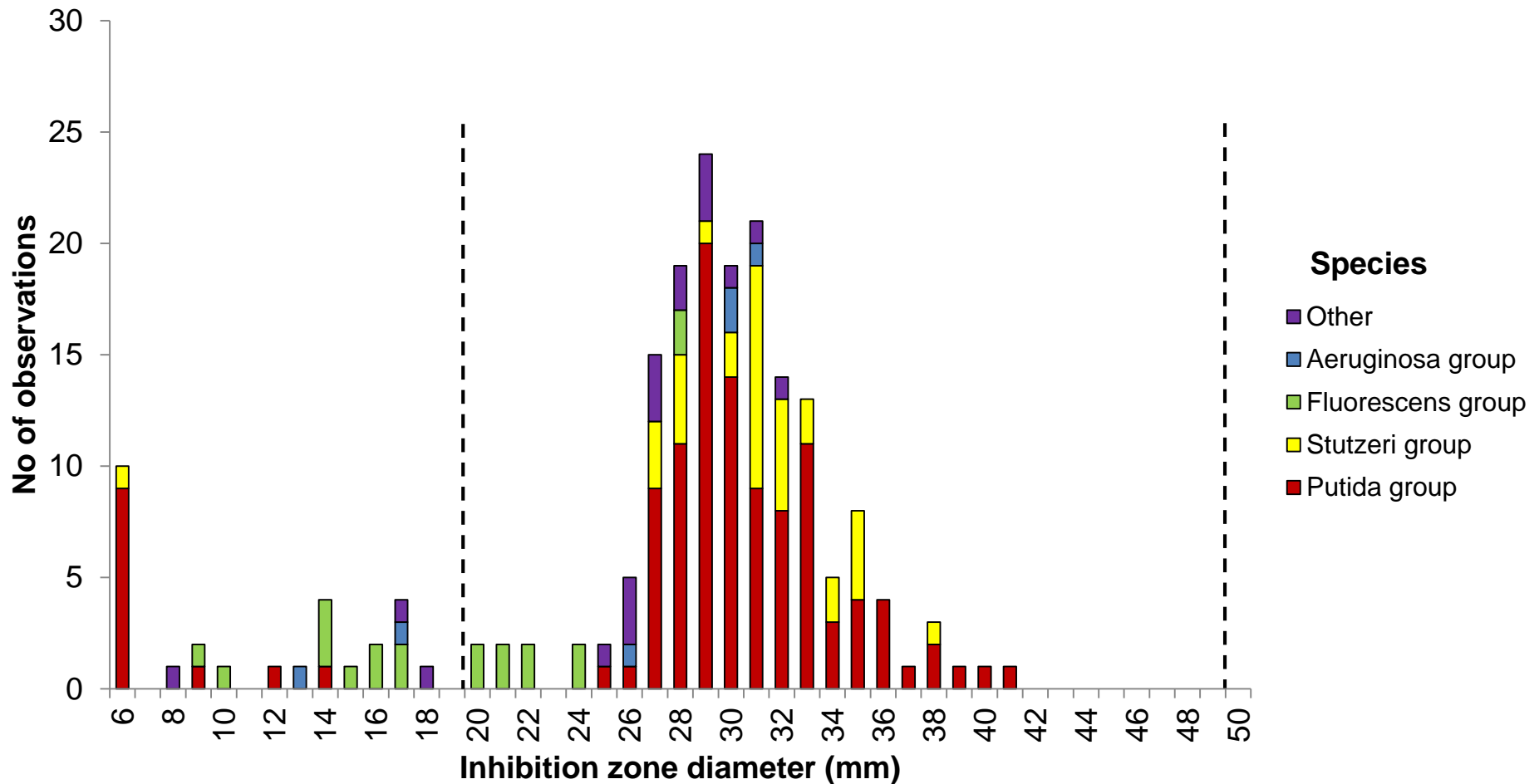
192 clinical isolates, *Pseudomonas non-aeruginosa*



Breakpoints
 Zone diameter $S \geq 50$, $R < 22$ mm

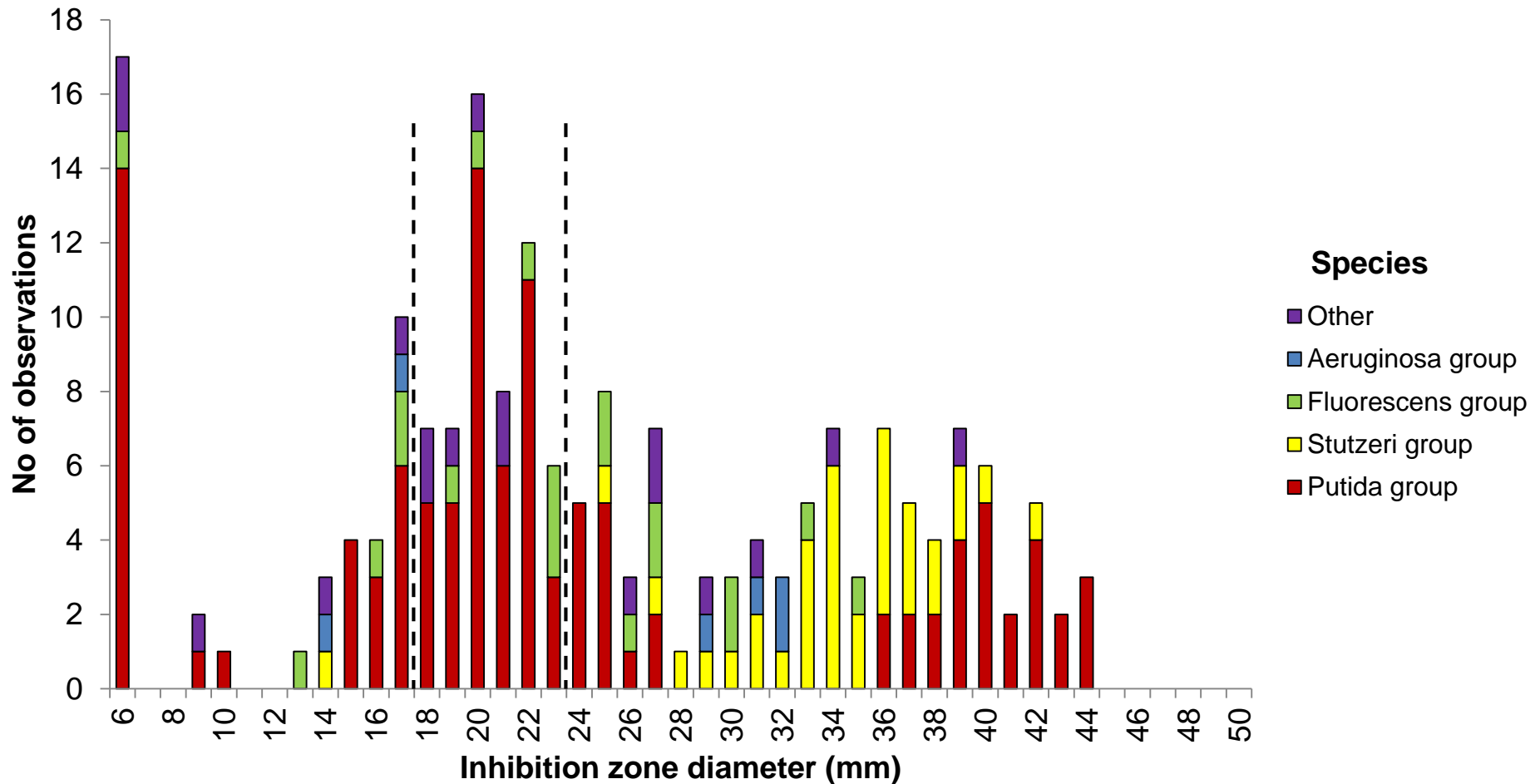
Imipenem 10 µg vs. species

Pseudomonas non-aeruginosa, 192 isolates



Breakpoints
 Zone diameter $S \geq 50$, $R < 20$ mm

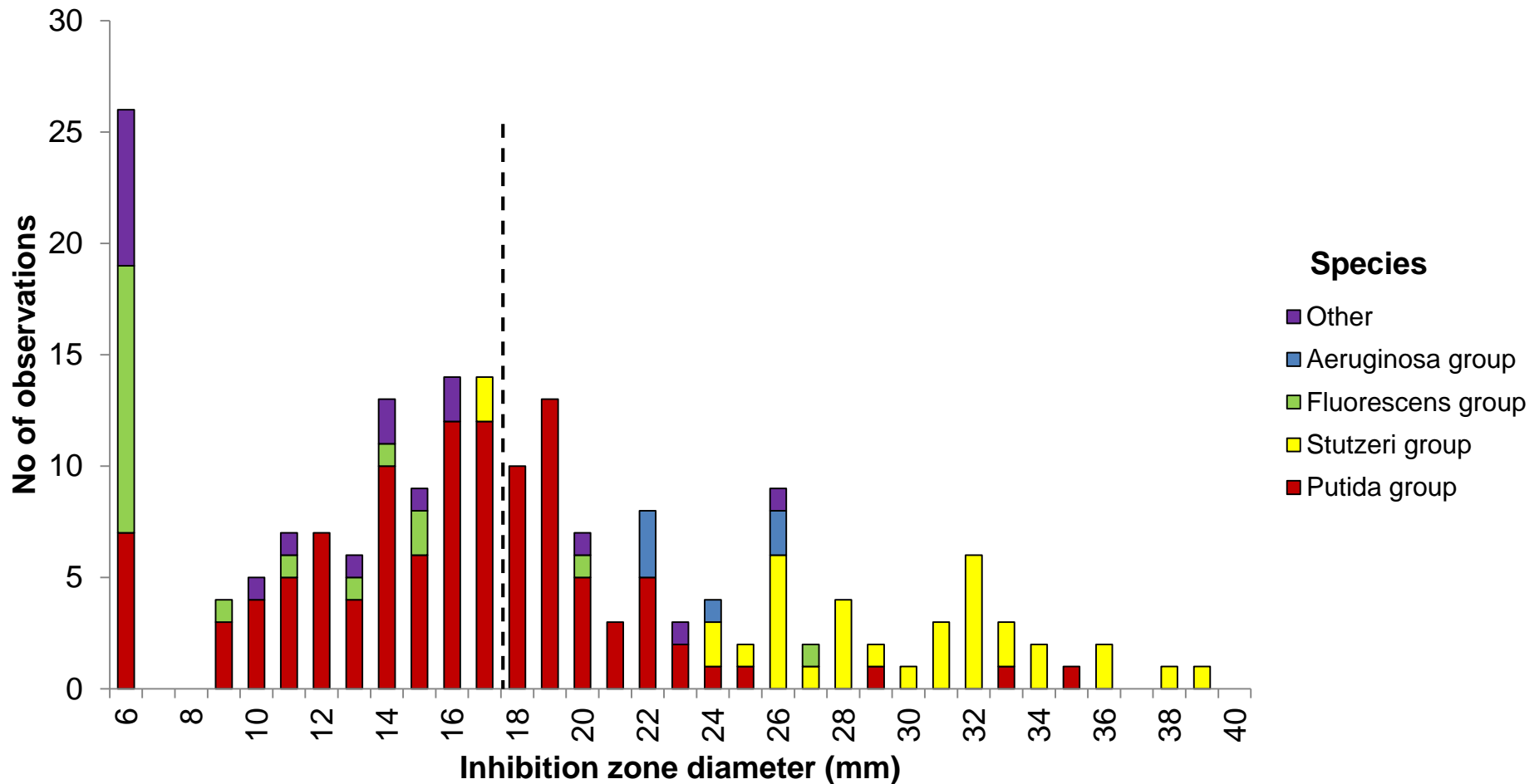
Meropenem 10 µg vs. species *Pseudomonas non-aeruginosa*, 191 isolates



Breakpoints (non-meningitis)
Zone diameter $S \geq 24$, $R < 18$ mm

Aztreonam 30 µg vs. species

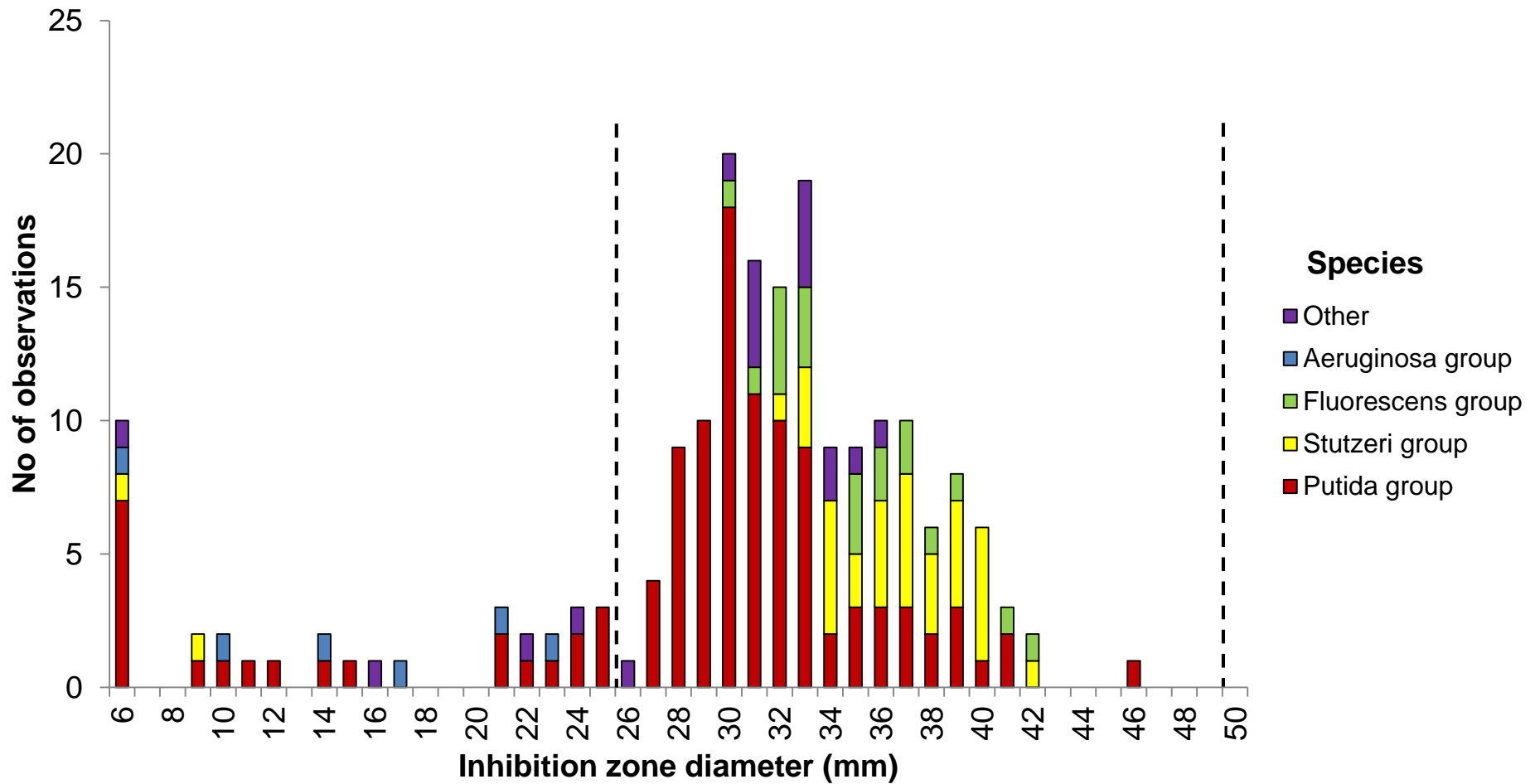
Pseudomonas non-aeruginosa, 192 isolates



Breakpoints

Zone diameter $S \geq 50$, $R < 18$ mm

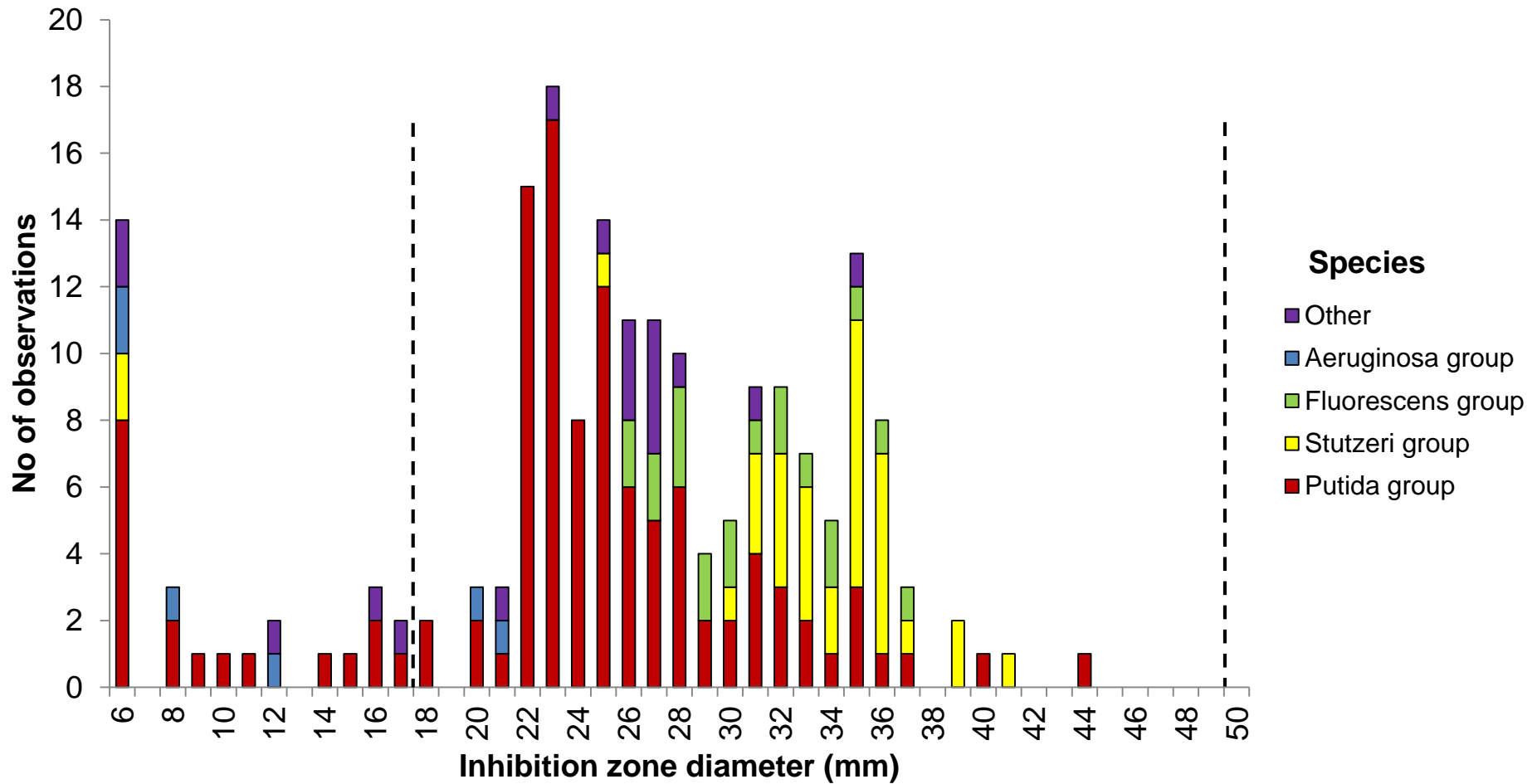
Ciprofloxacin 5 μ g vs. species *Pseudomonas non-aeruginosa*, 192 isolates



Breakpoints
Zone diameter $S \geq 50$, $R < 26$ mm

Levofloxacin 5 μ g vs. species

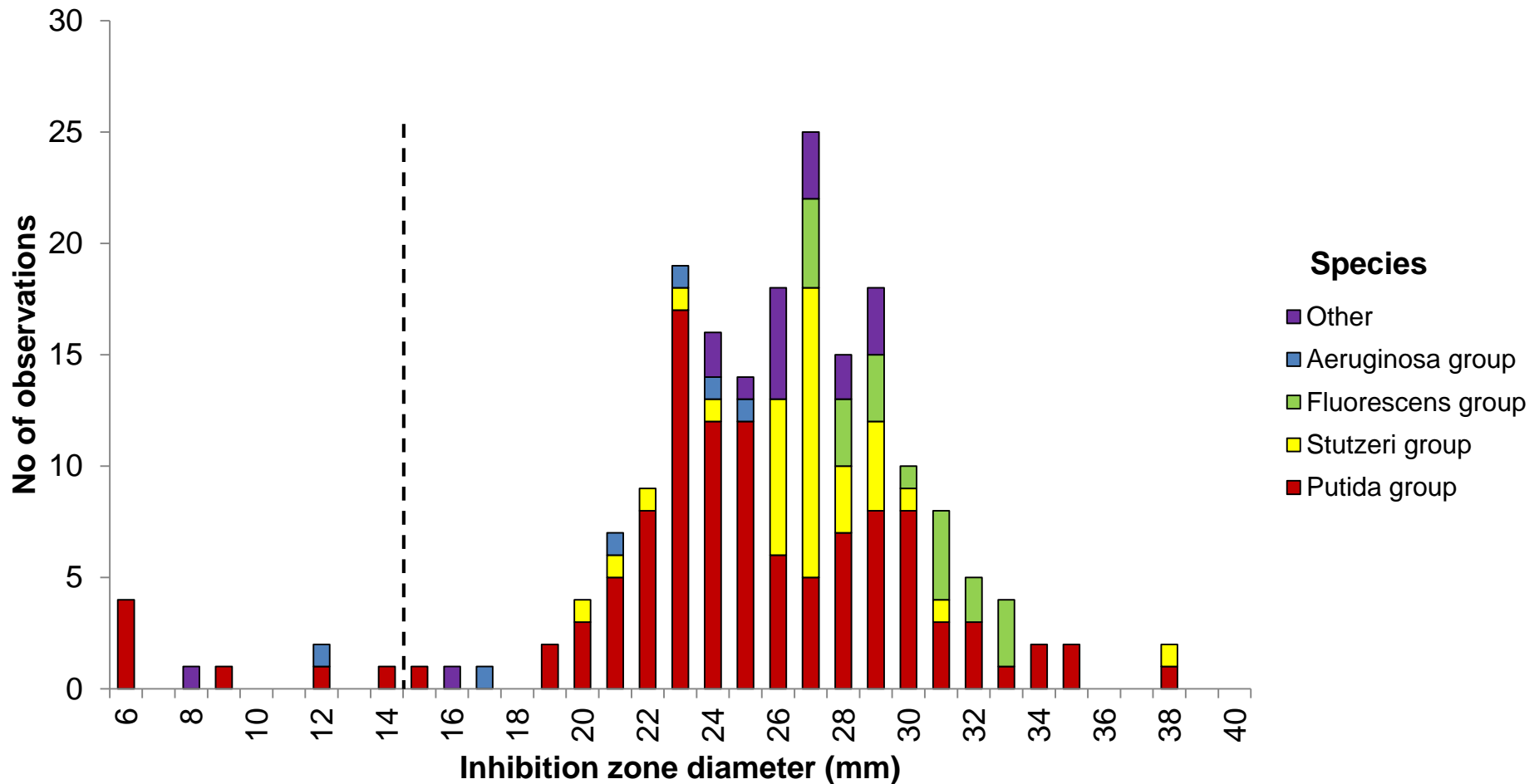
Pseudomonas non-aeruginosa, 192 isolates



Breakpoints
 Zone diameter $S \geq 50$, $R < 18$ mm

Amikacin 30 µg vs. species

Pseudomonas non-aeruginosa, 192 isolates



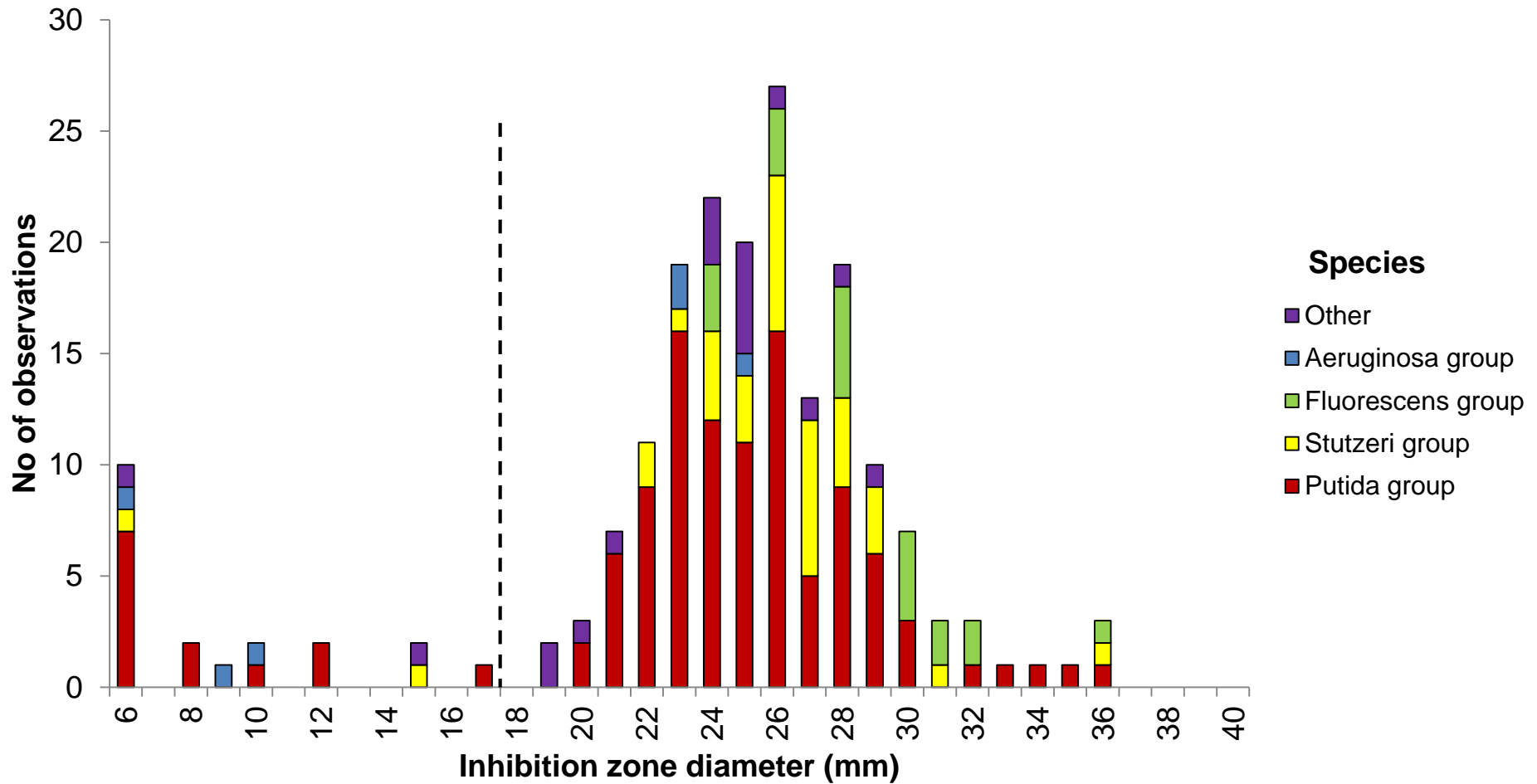
Breakpoints

Zone diameter

$S \geq 15$, $R < 15$ mm

Tobramycin 10 µg vs. species

Pseudomonas non-aeruginosa, 192 isolates



Breakpoints

Zone diameter $S \geq 18$, $R < 18$ mm



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