

BULWER'S PETREL (Bulweria bulwerii): At-Sea Distribution and Abundance

The following maps represent all At-Sea observations made by personnel of the Pacific Ocean Biological Survey Program from February, 1963, through August, 1965.

Each square represents one days observation from the first through the fifteenth of the month, while each circle represents one days observation from the sixteenth through the thirty-first of each month.

Numbers refer to the actual number of birds observed during the day.

Color code:

yellow = 0 birds  
green = 1-10 birds  
blue = 11-50 birds  
red = 51-100 birds  
brown = 100+ birds



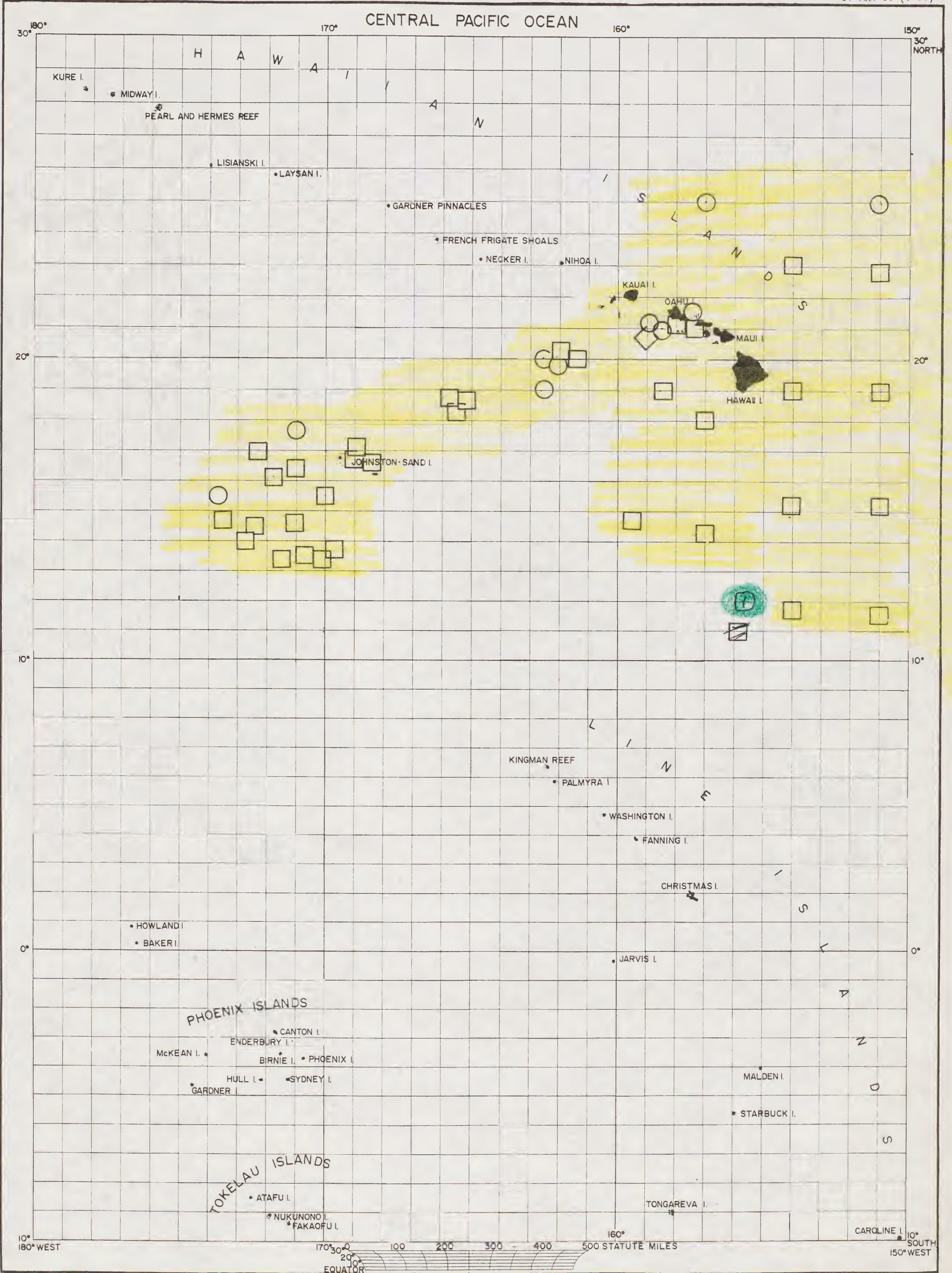
- 1-15 December
- = 16-31 December
- = 0 birds
- ④ = 1-10 "
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- (with diagonal lines) = 101-500 "
- (solid black) = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

DECEMBER

SI-MNH-38 (8-65)





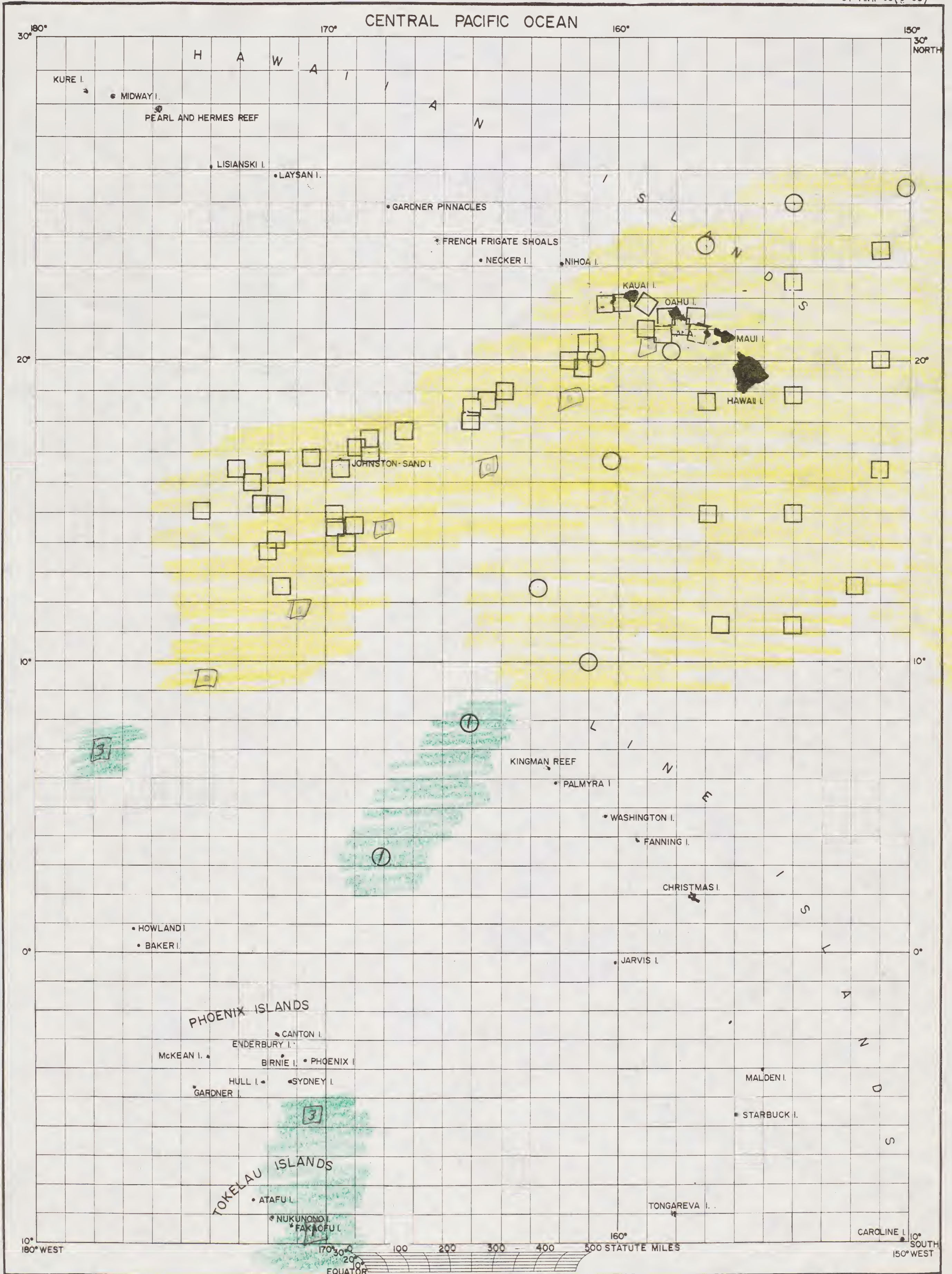
- 1-15 November
- = 16-31 November
- = 0 birds
- ④ = 1-10 "
- ⊖ = 11-25 "
- ⊕ = 26-50 "
- ⊗ = 51-100 "
- = 101-500 "
- ⦿ = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

NOVEMBER

SI-MNH-38(8-55)





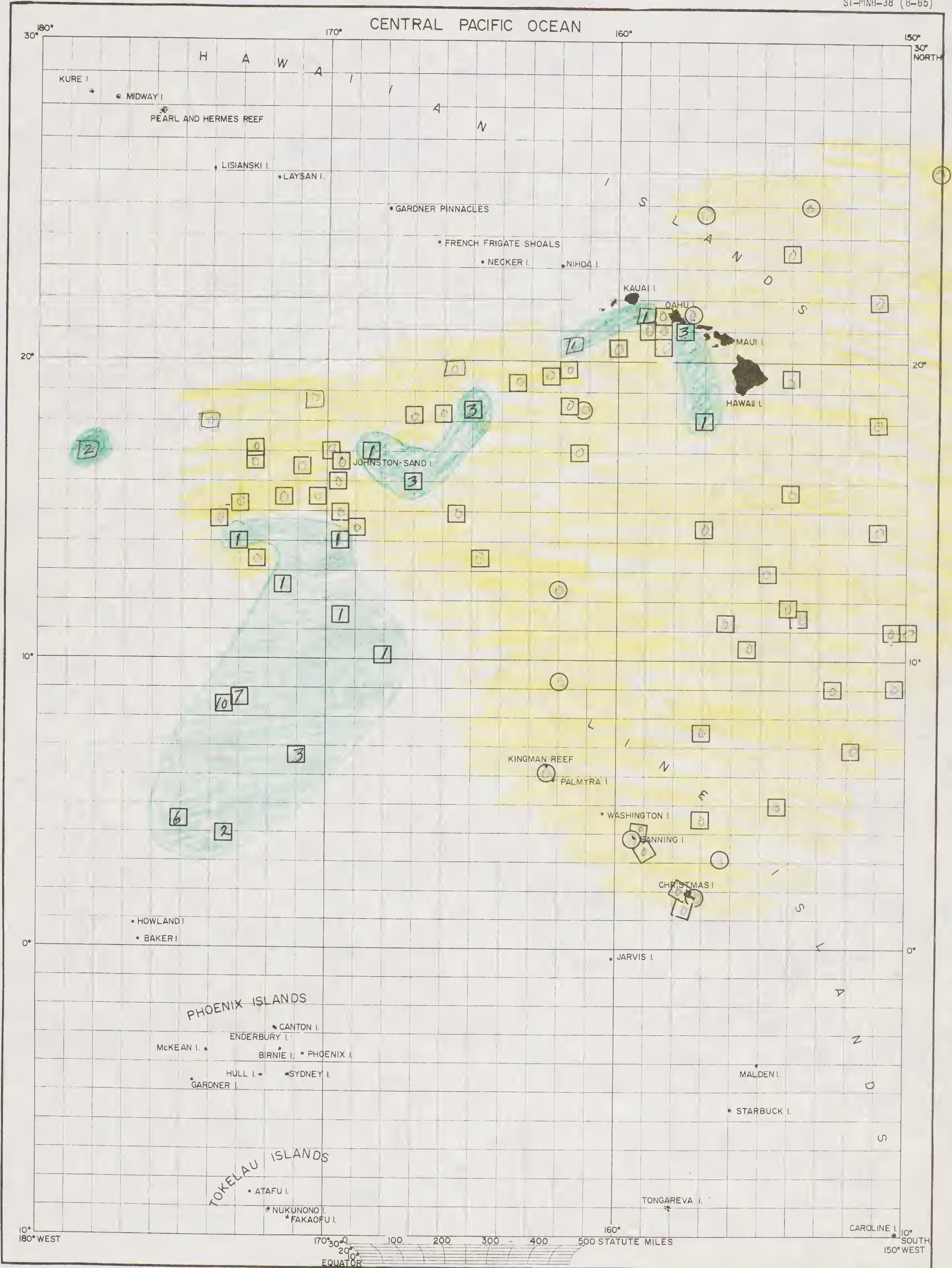
- ☐ 1-15 October
- = 16-31 October
- = 0 birds
- ④ = 1-10 "
- ⊖ = 11-25 "
- ⊕ = 26-50 "
- ⊗ = 51-100 "
- = 101-500 "
- = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

OCTOBER

SI-MNH-38 (8-65)





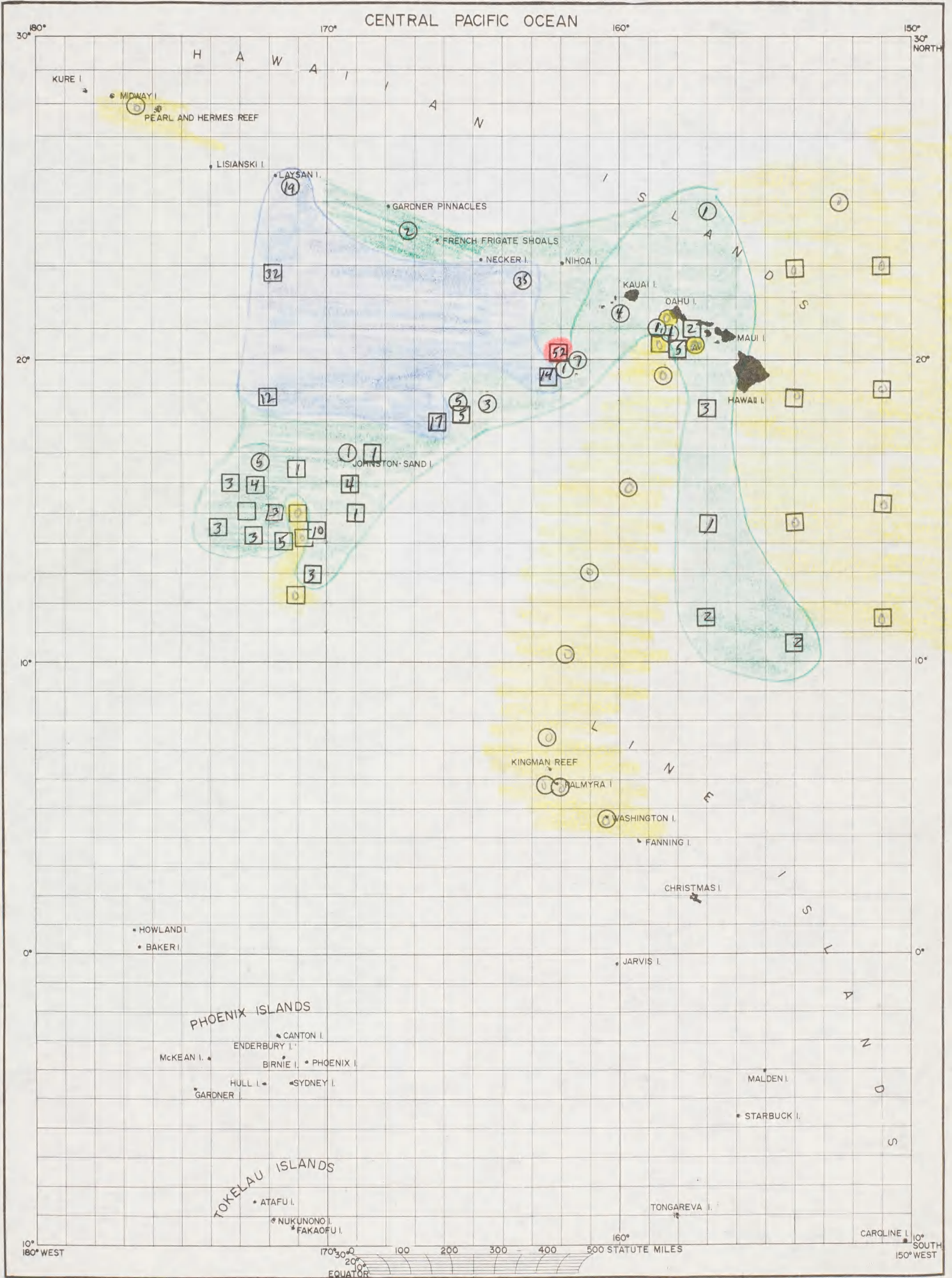
- 1-15 September
- = 16-31 September
- = 0 birds
- ④ = 1-10 "
- ④ = 11-25 "
- ④ = 26-50 "
- ④ = 51-100 "
- = 101-500 "
- = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

SEPTEMBER

SI-MNH-38 (8-65)





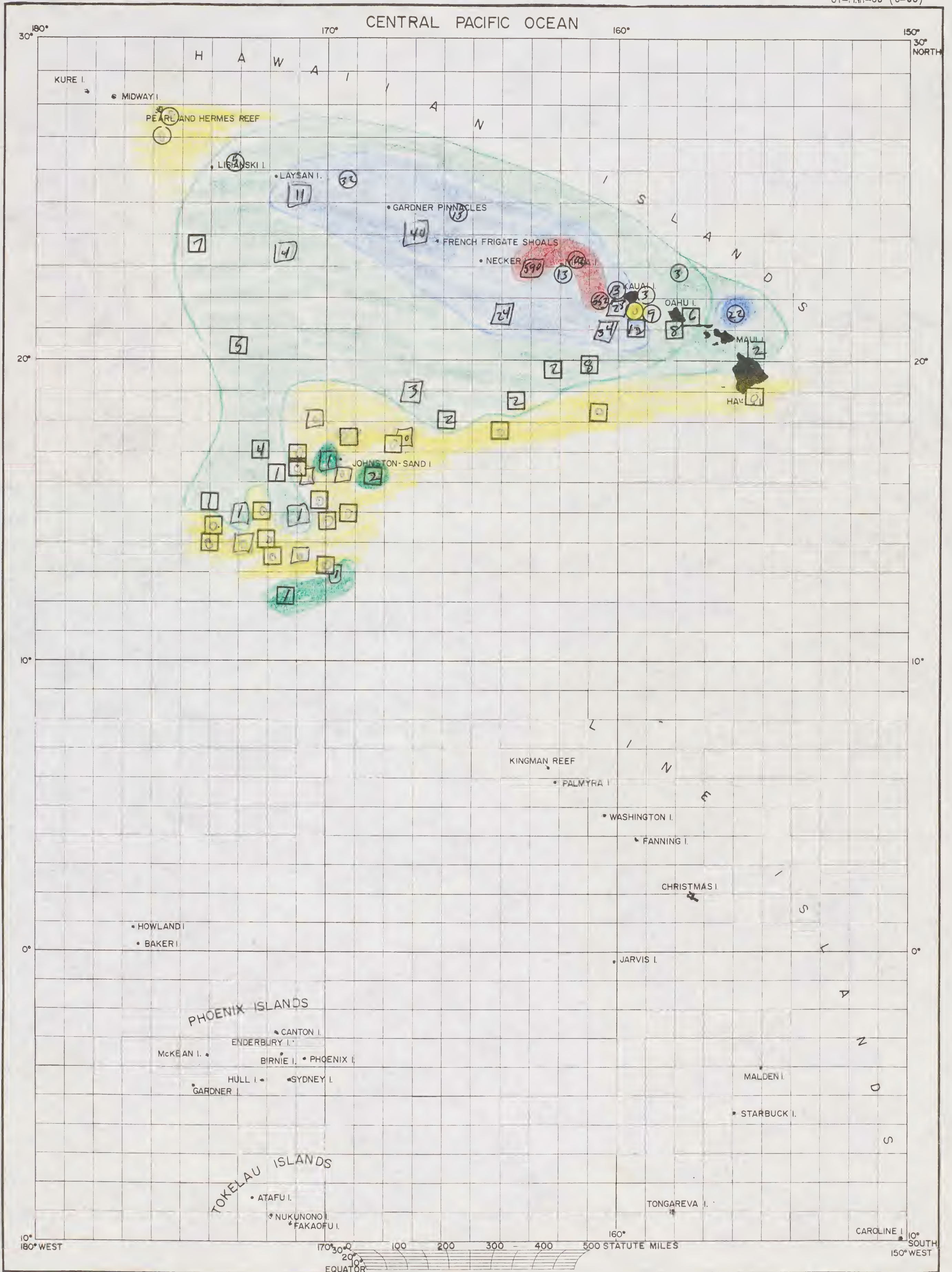
- 1-15 August
- = 16-31 August
- = 0 birds
- (with 1-10) = 1-10 "
- (with 11-25) = 11-25 "
- (with 26-50) = 26-50 "
- (with 51-100) = 51-100 "
- (with 101-500) = 101-500 "
- (with 500+) = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

AUGUST

SI-MNH-38 (8-65)





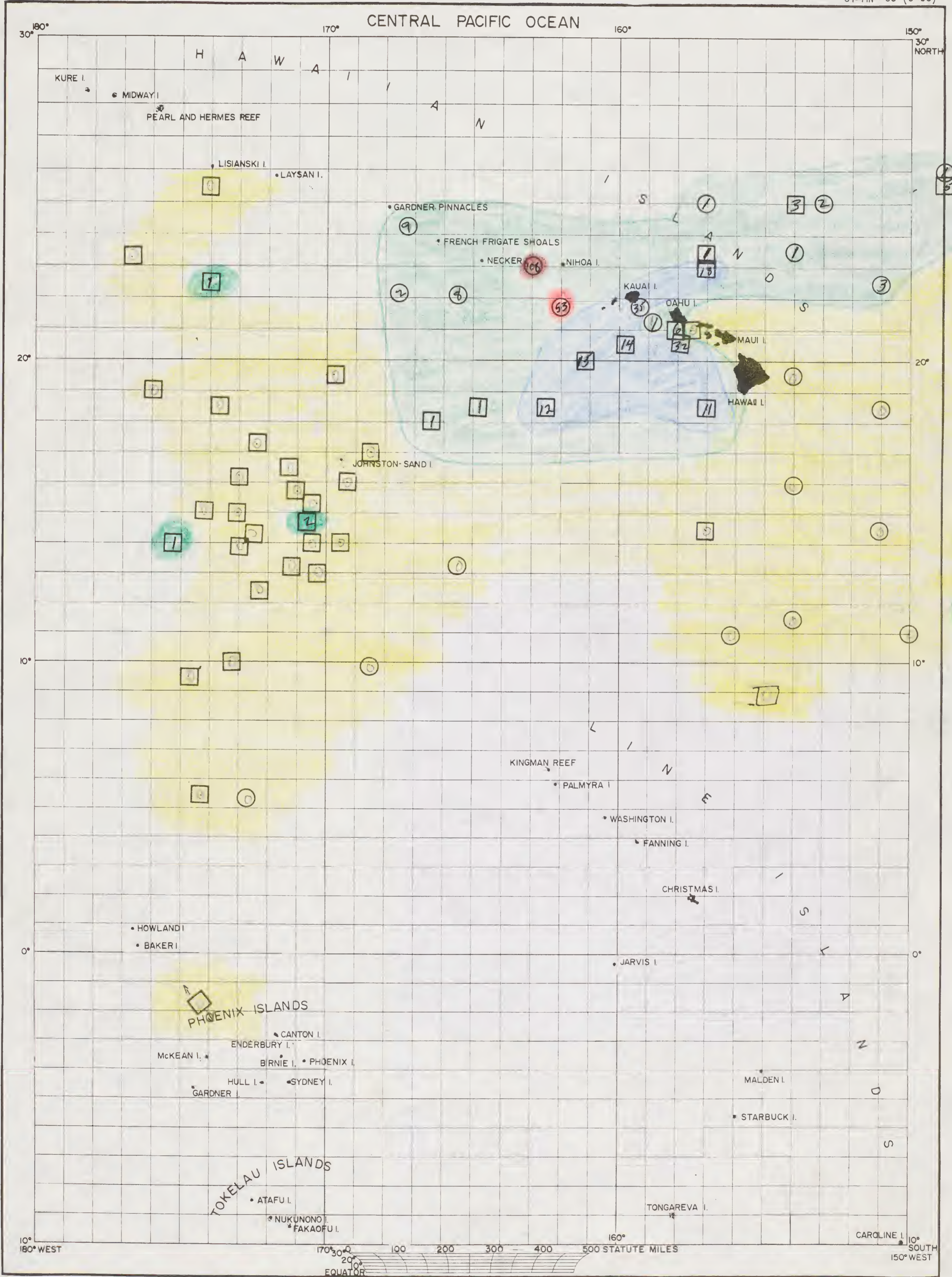
- ☐ 1-15 July
- = 16-31 July
- = 0 birds
- Ⓐ = 1-10 birds
- ⓪ = 11-25 "
- Ⓛ = 26-50 "
- Ⓜ = 51-100 "
- = 101-500 "
- ⦿ = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

JULY

SI-MNP-38 (8-65)





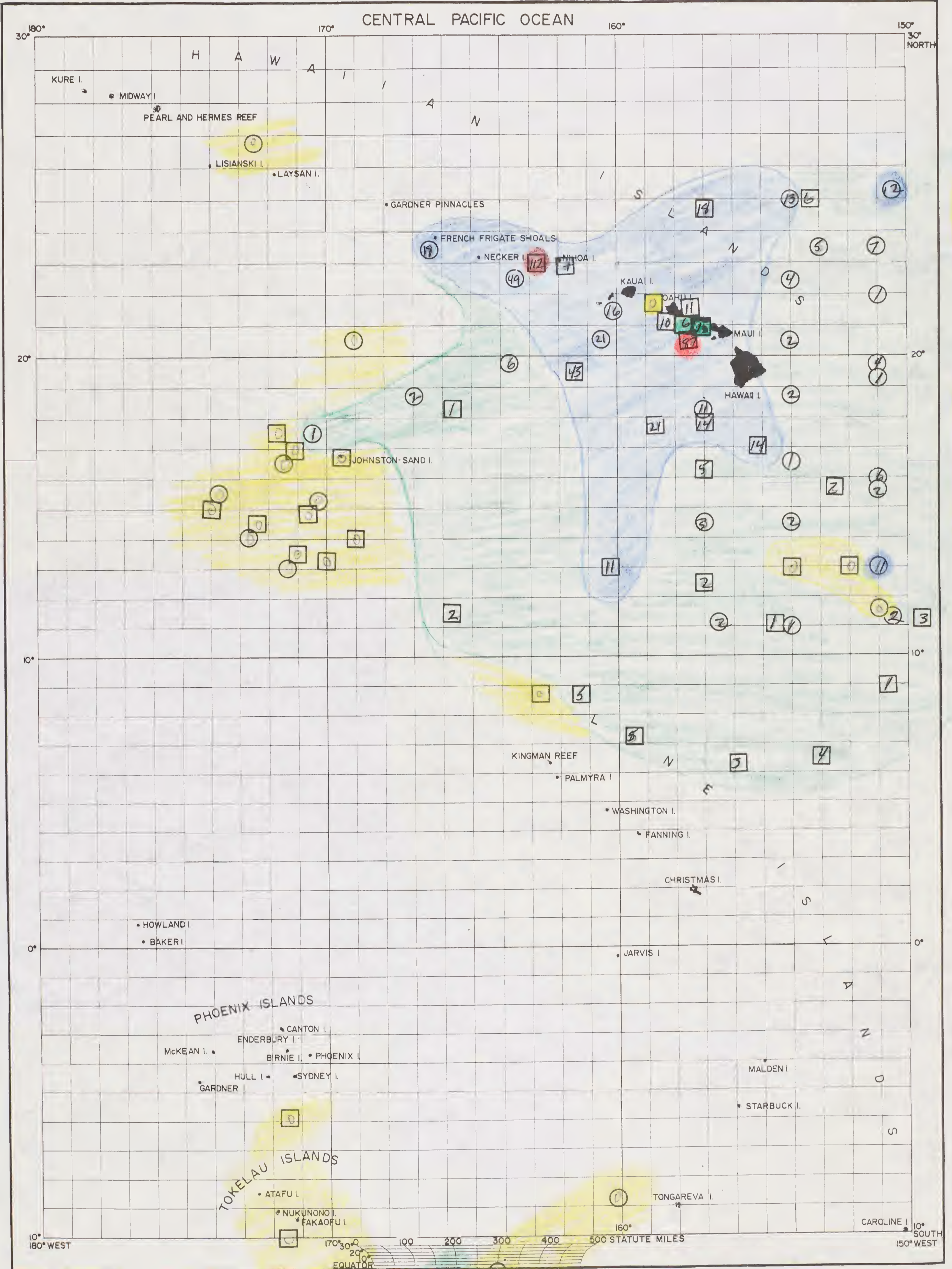
- 1-15 June
- = 16-31 June
- ⊗ = 0 birds
- ⊗ = 1-5 XXXX
- ⊗ = 6-10 XXXX
- ⊗ = 11-25 XXXX
- ⊗ = 26-50 XXXX
- ⊗ = 51-100 XXXX
- = 101-500 XXXX
- = 500+ XXXX

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

JUNE

SI-MNH-38 (8-65)





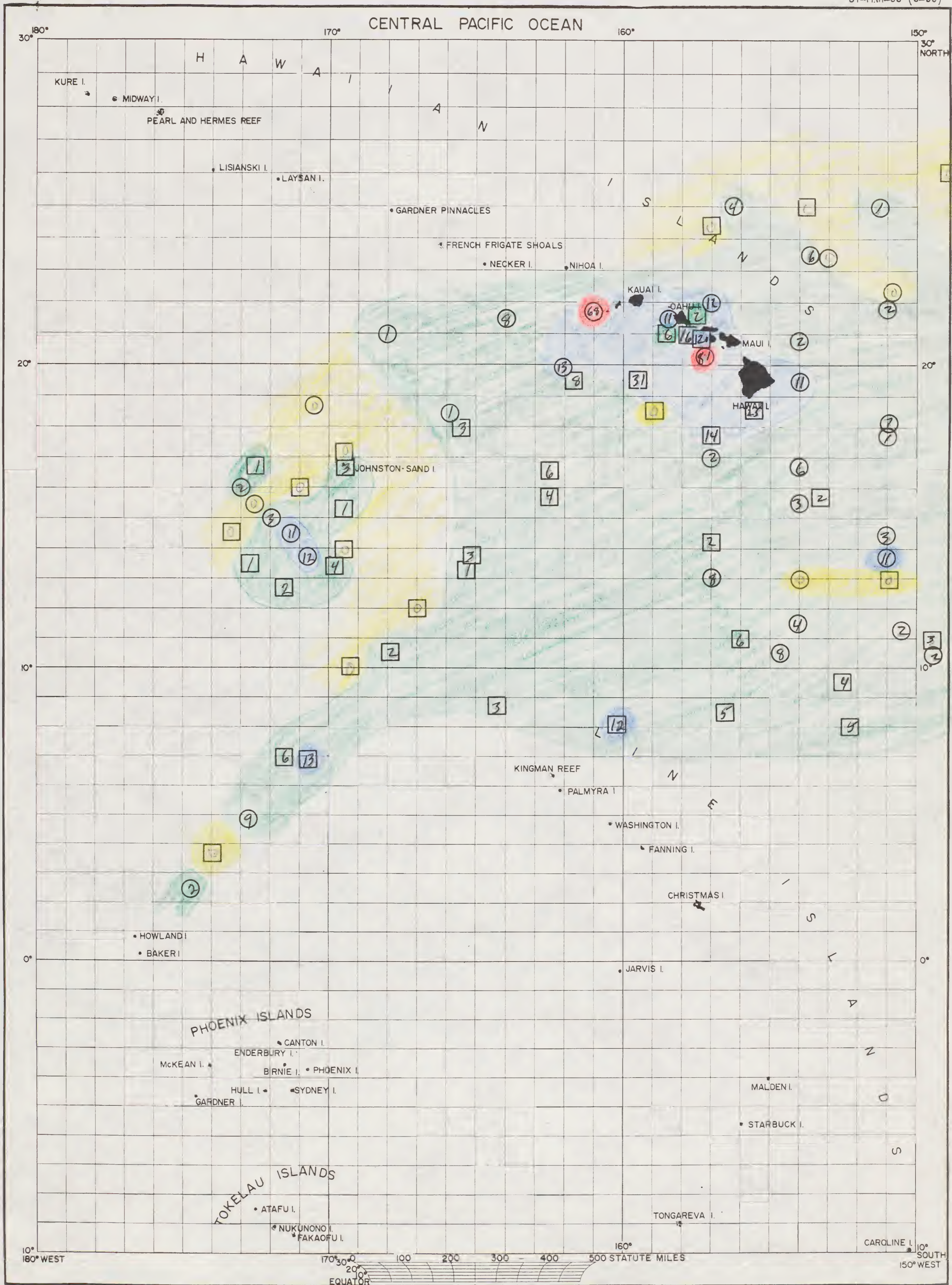
- 1-15 May
- = 16-31 May
- ⊗ = 0 birds
- ⊗ = 1-10 " " " "
- ⊗ = 11-25 " " " "
- ⊗ = 26-50 " " " "
- ⊗ = 51-100 " " " "
- = 101-500 " " " "
- = 500+ " " " "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

MAY

SI-MNH-38 (8-65)





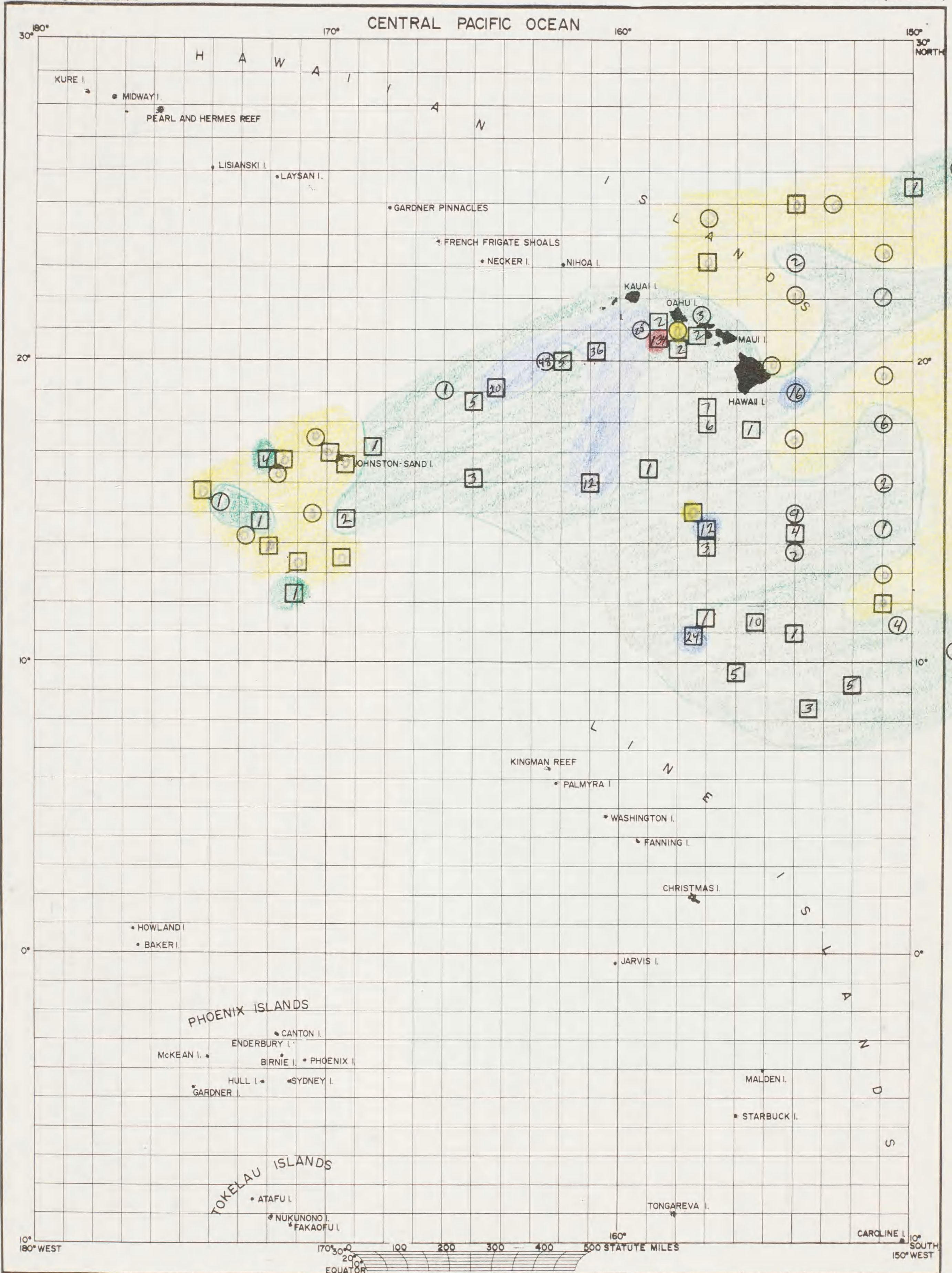
- ☐ = 1-15 April
- = 16-31 April
- ⊗ = 1-10
- ④ = 11-20
- ⊗ = 21-30
- ⊗ = 31-50
- ⊗ = 51-100
- ⊗ = 101-500
- ⊗ = 500+

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

APRIL

SI-MNH-38 (REV. 9-65)





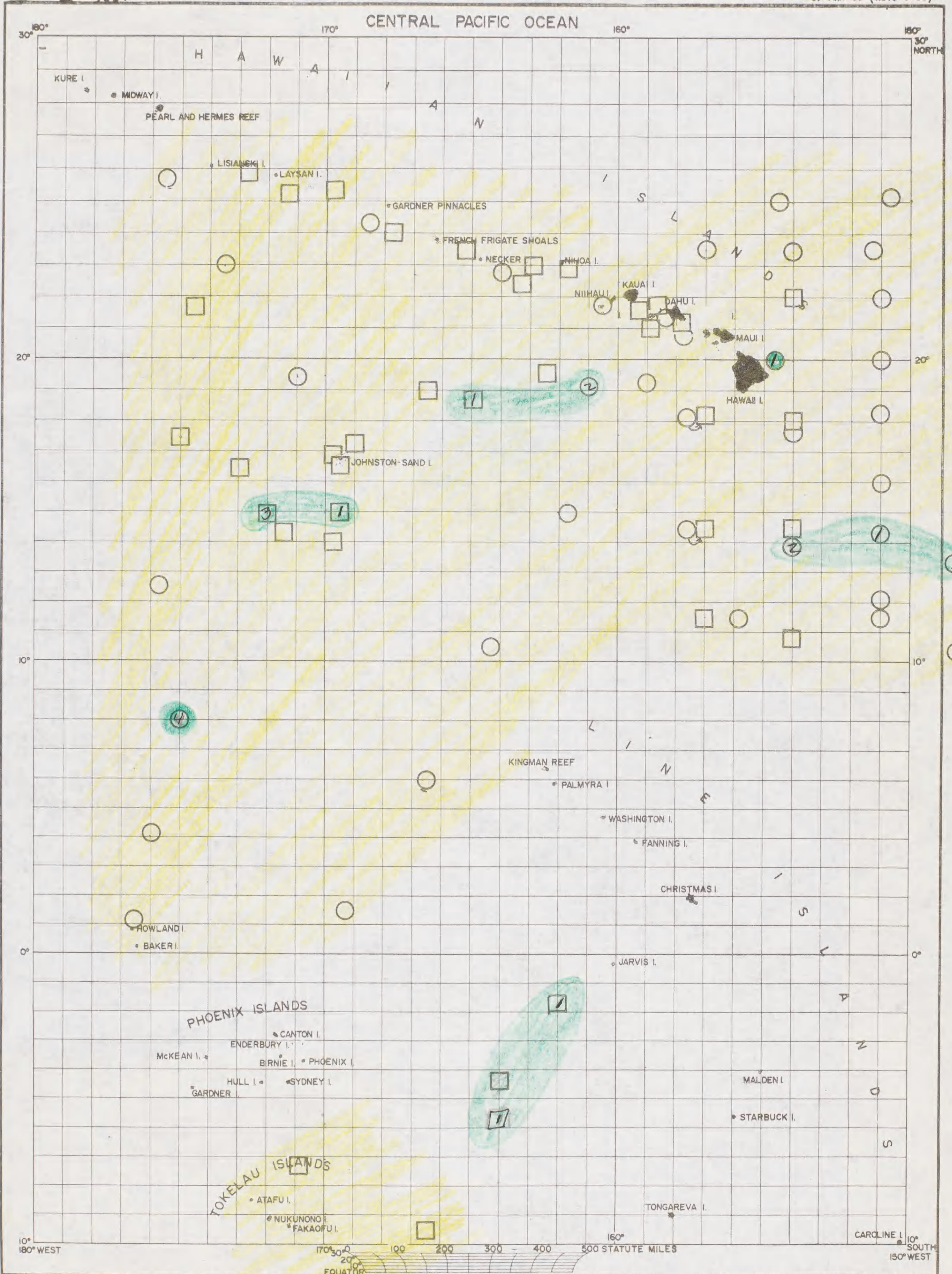
- = 1-15 March
- = 16-31 March
- ⊗ = 0 birds
- ⊙ = 1-10
- ⊘ = 11-25
- ⊚ = 26-50
- ⊛ = 51-100
- ⊜ = 1001-5000
- ⊝ = 500+

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

MARCH

SI-MNM-38 (REV. 9-65)





□ = 1-15 February  
 ○ = 16-31 February

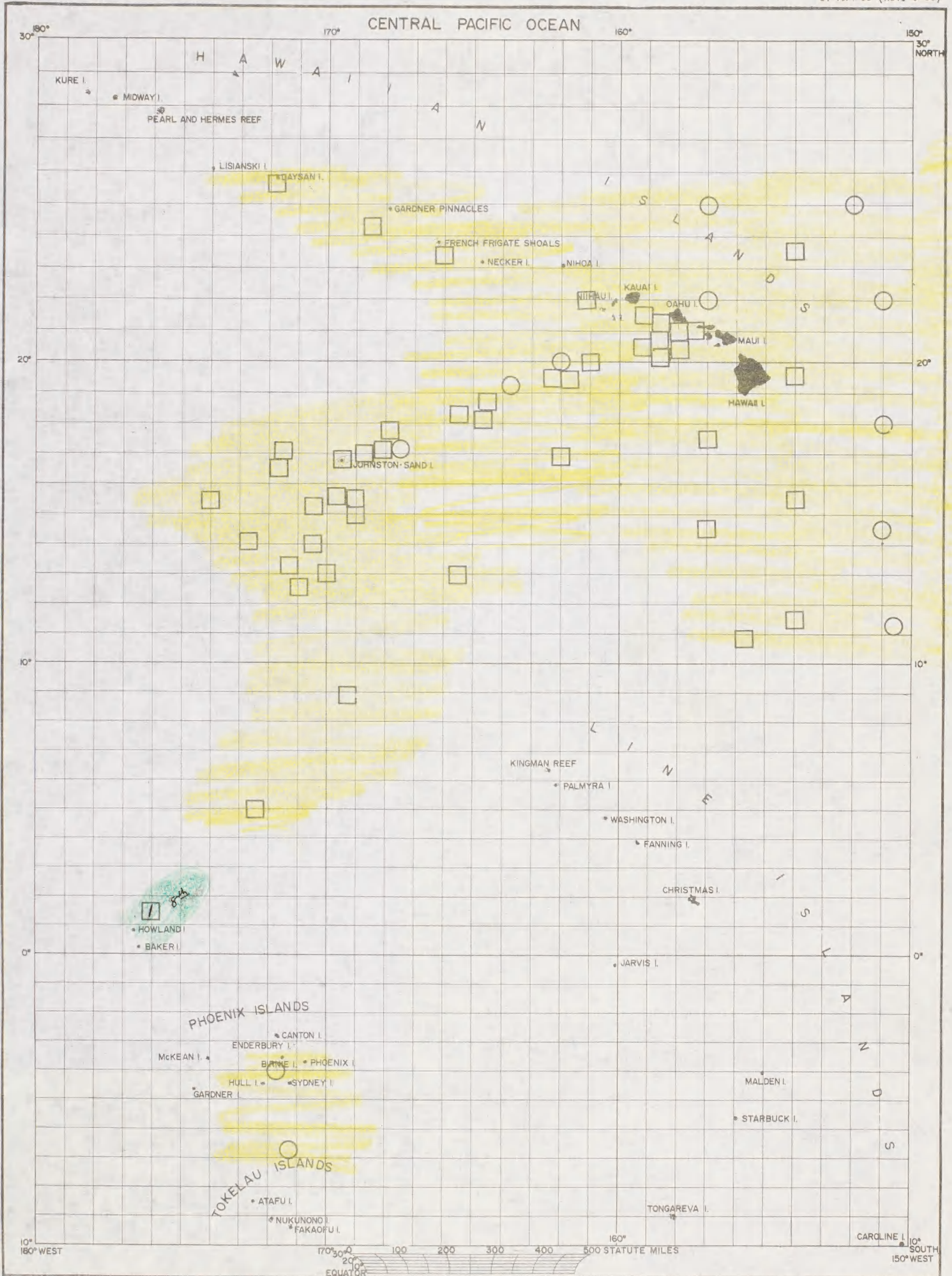
XXXXXXXXXXXX  
 XXXXXXXXXXXX  
 XXXXXXXXXXXX  
 XXXXXXXXXXXX  
 XXXXXXXXXXXX  
 XXXXXXXXXXXX  
 XXXXXXXXXXXX

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

FEBRUARY

SI-MNH-38 (REV. 9-65)





□ = 1-15 January  
 ○ = 16-31 January

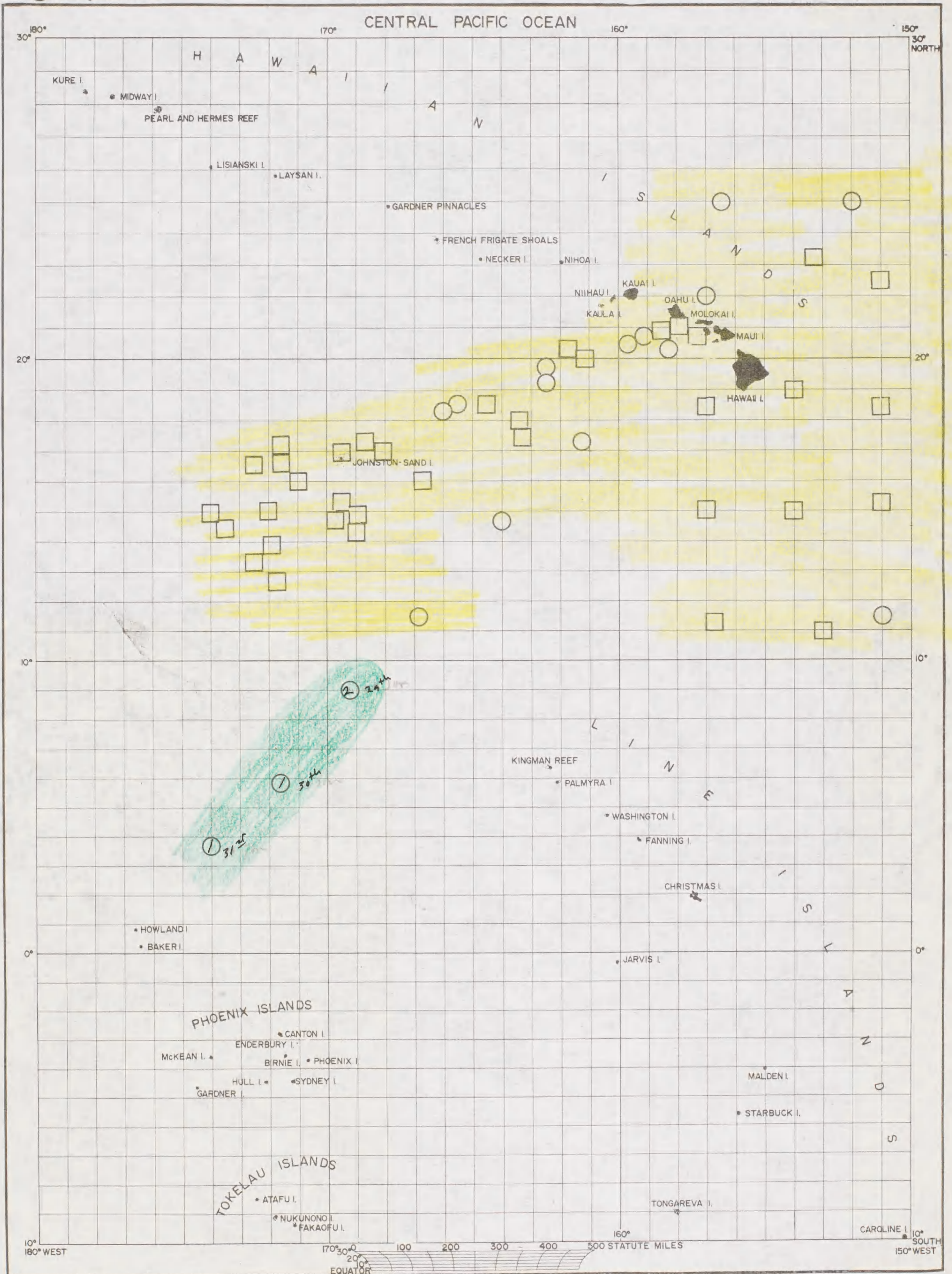
XXXXXXXXXXXXXXXXX  
 ○ = 0 birds  
 ○ = 1-10  
 ○ = 11-25  
 ○ = 26-50  
 ○ = 51-100  
 ○ = 101-500  
 ○ = 500+ birds

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

JANUARY

SI-MNH-38 (REV. 9-65)





BULWER'S PETREL (Bulweria bulwerii): At-Sea Distribution and Abundance

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Color code:

yellow = 0 birds  
green = 1-10 birds  
blue = 11-50 birds  
red = 51-100 birds  
brown = 100+ birds



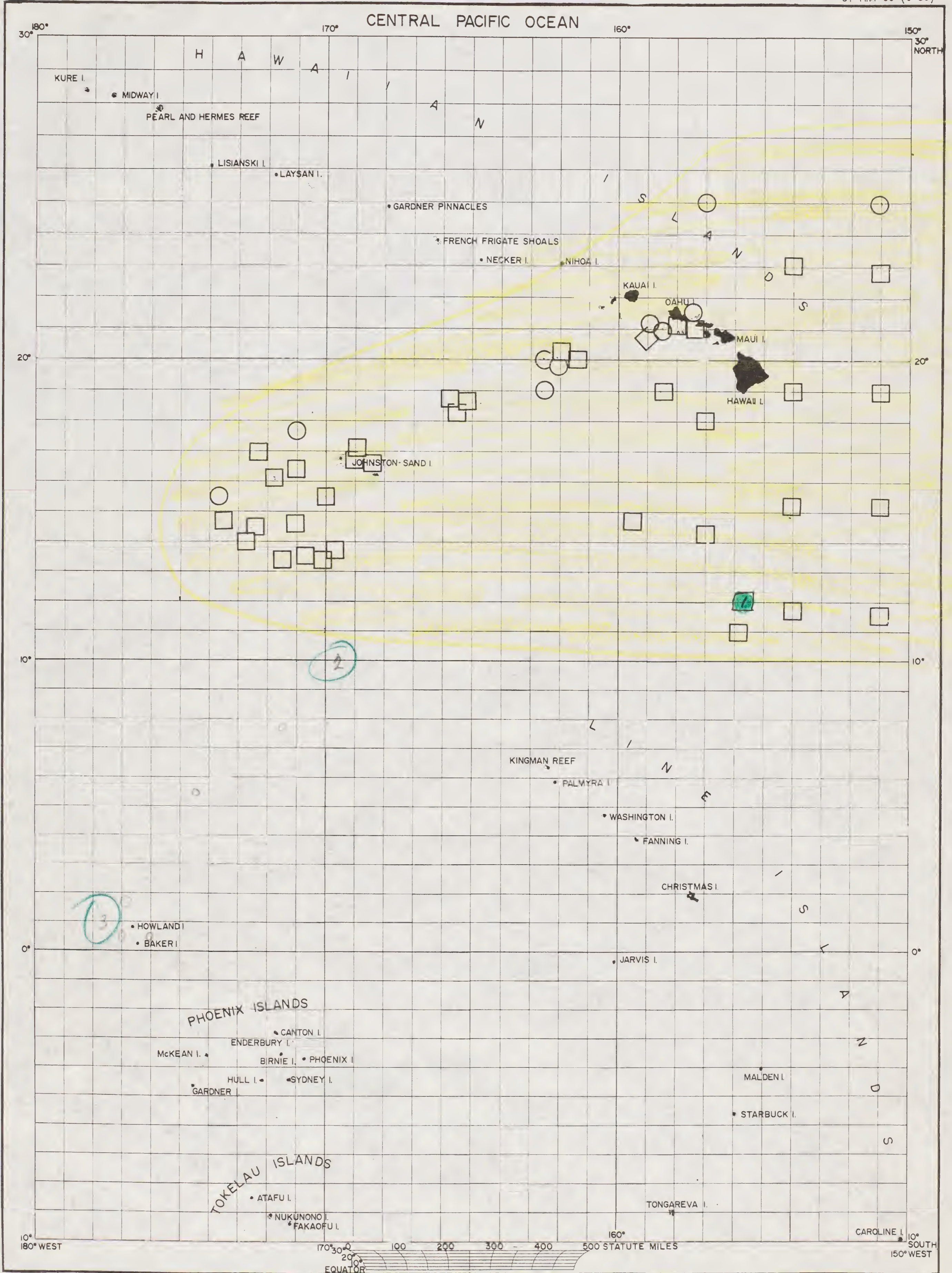
- 1-15 December
- = 16-31 December
- = 0 birds
- ④ = 1-10 "
- ⊖ = 11-25 "
- ⊕ = 26-50 "
- ⊗ = 51-100 "
- = 101-500 "
- = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

DECEMBER

SI-MNH-38 (8-65)





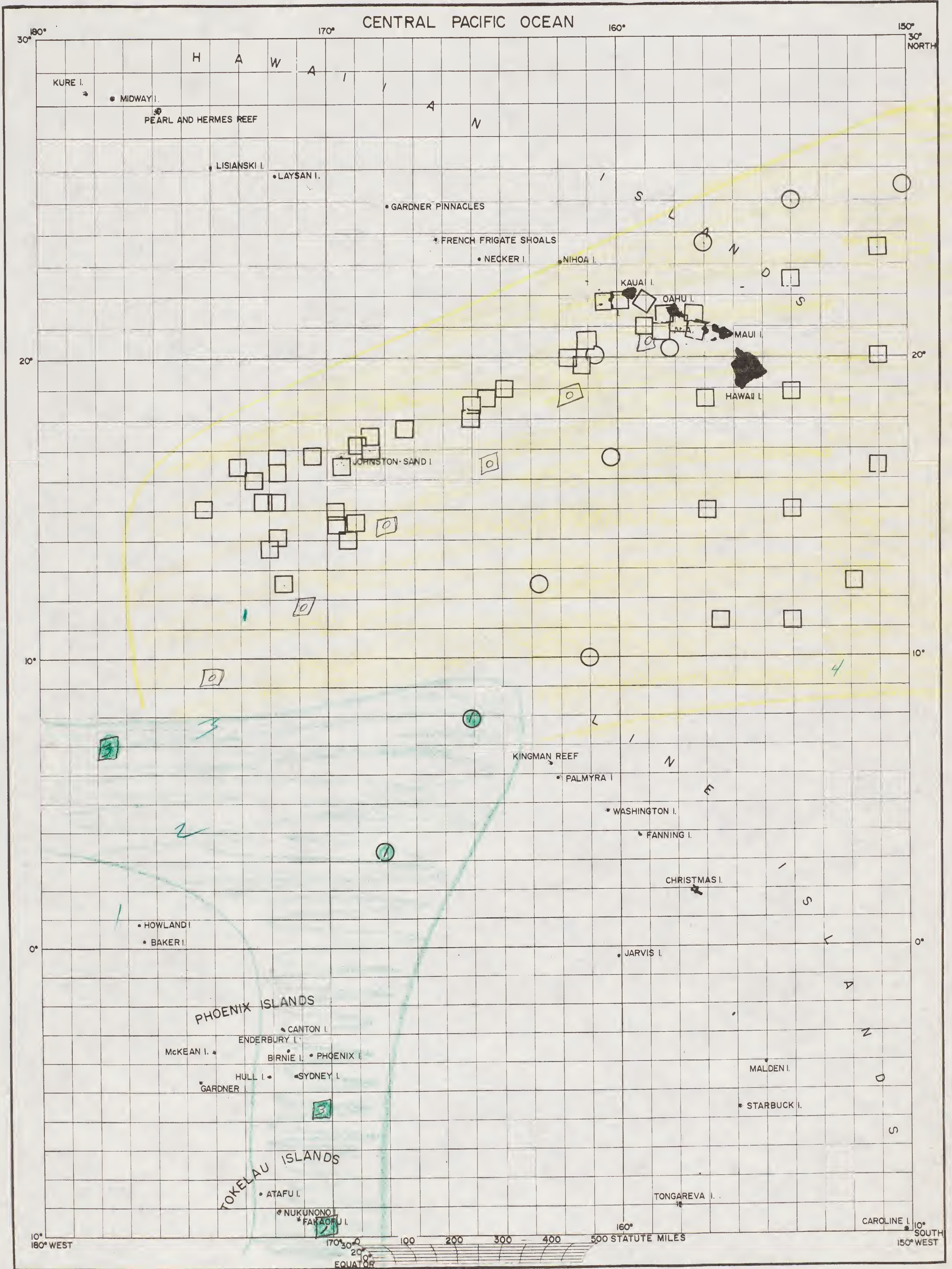
- 1-15 November
- = 16-31 November
- = 0 birds
- ④ = 1-10 "
- ⊖ = 11-25 "
- ⊕ = 26-50 "
- ⊗ = 51-100 "
- = 101-500 "
- ⦿ = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

NOVEMBER

SI-MNH-38(8-95)





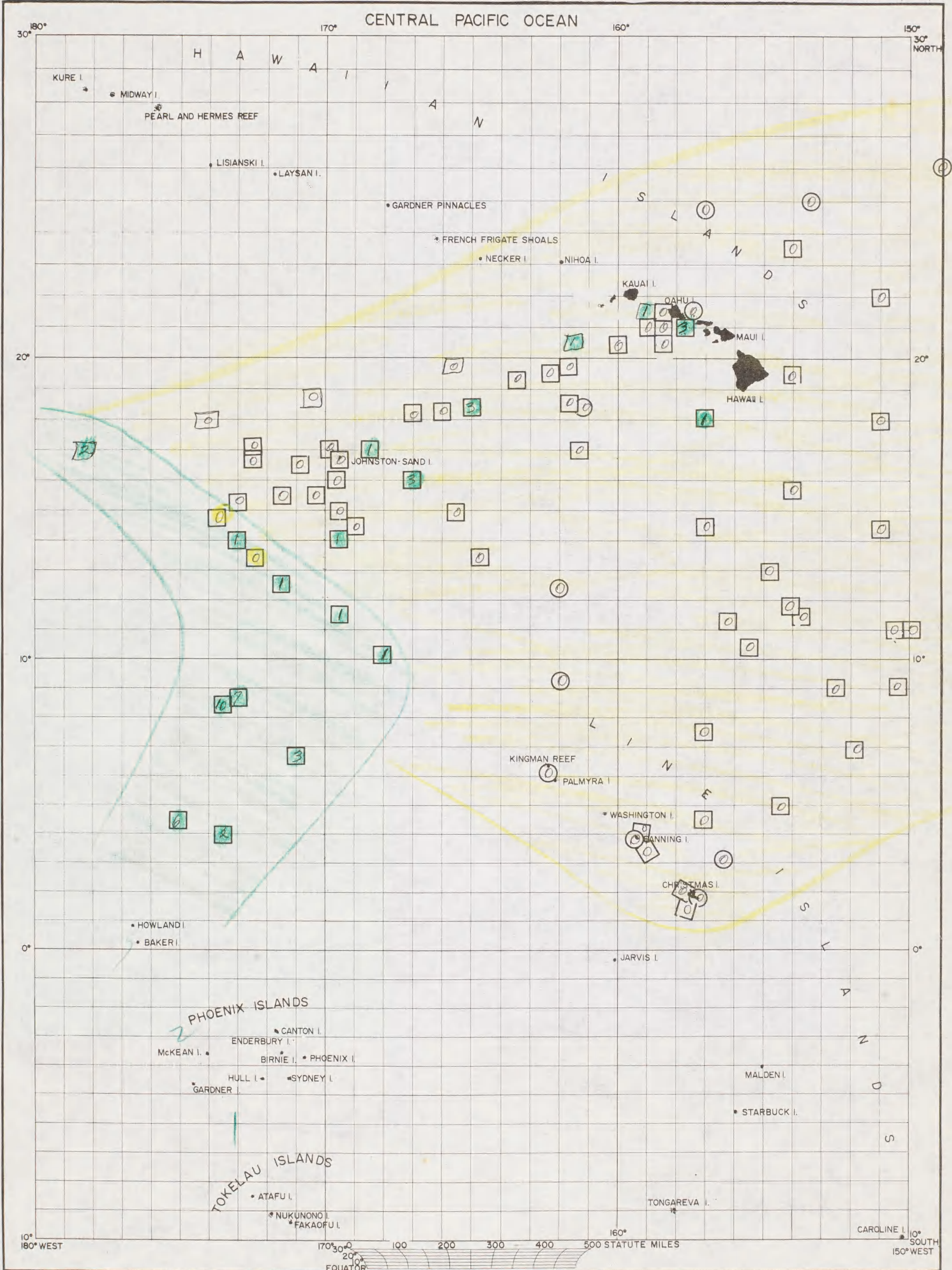
- ☐ 1-15 October
- = 16-31 October
- = 0 birds
- ④ = 1-10 "
- ⊖ = 11-25 "
- ⊕ = 26-50 "
- ⊗ = 51-100 "
- = 101-500 "
- ⦿ = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

OCTOBER

SI-MNH-38 (8-65)





□ 1-15 September

○ = 16-31 September

○ = 0 birds

④ = 1-10 "

⊖ = 11-25 "

⊕ = 26-50 "

⊗ = 51-100 "

● = 101-500 "

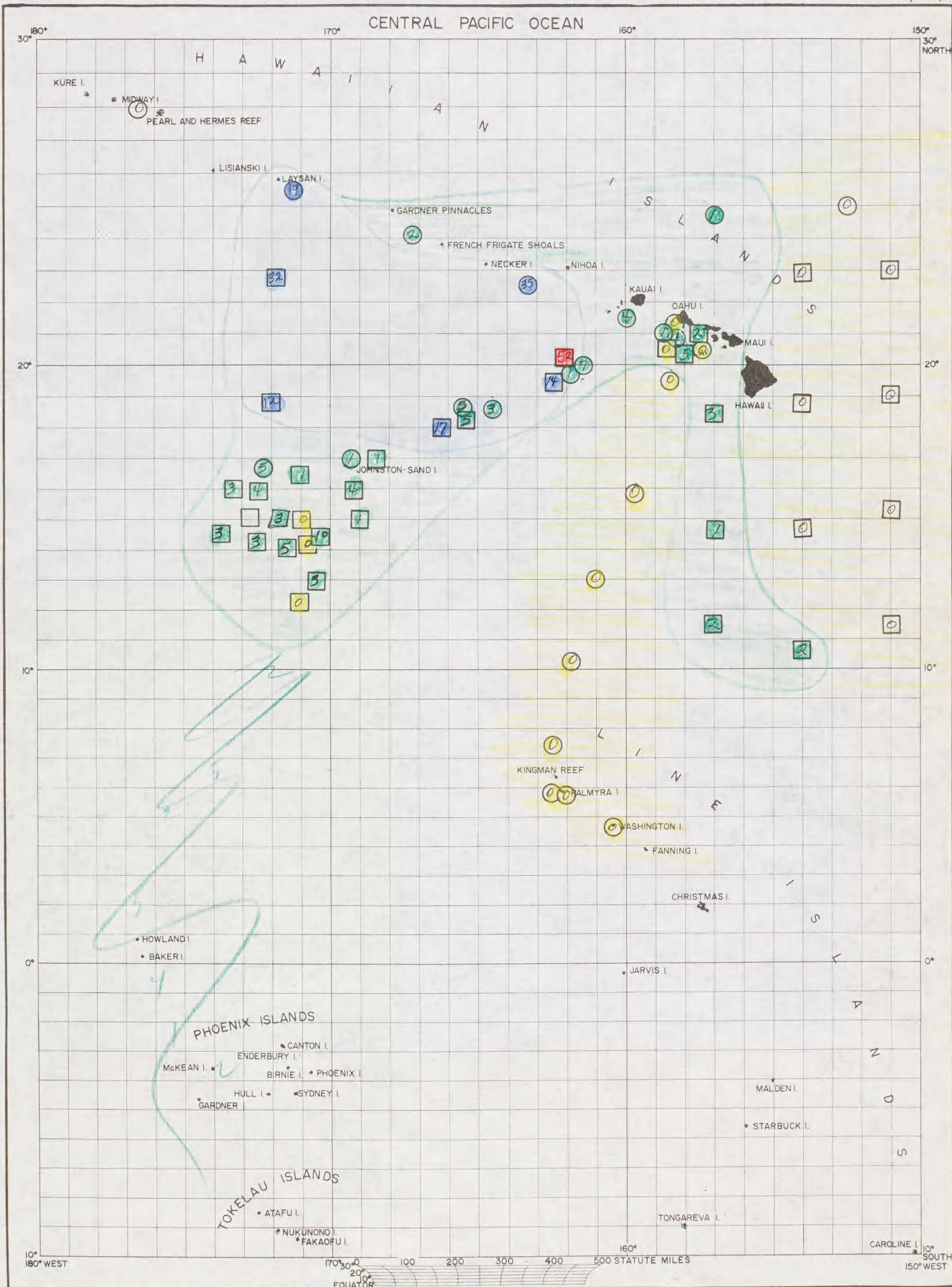
⦿ = 500+ "

### BULWER'S PETREL (*Bulweria bulwerii*)

### At-Sea Distribution and Abundance

SEPTEMBER

SI-MNH-38 (8-65)





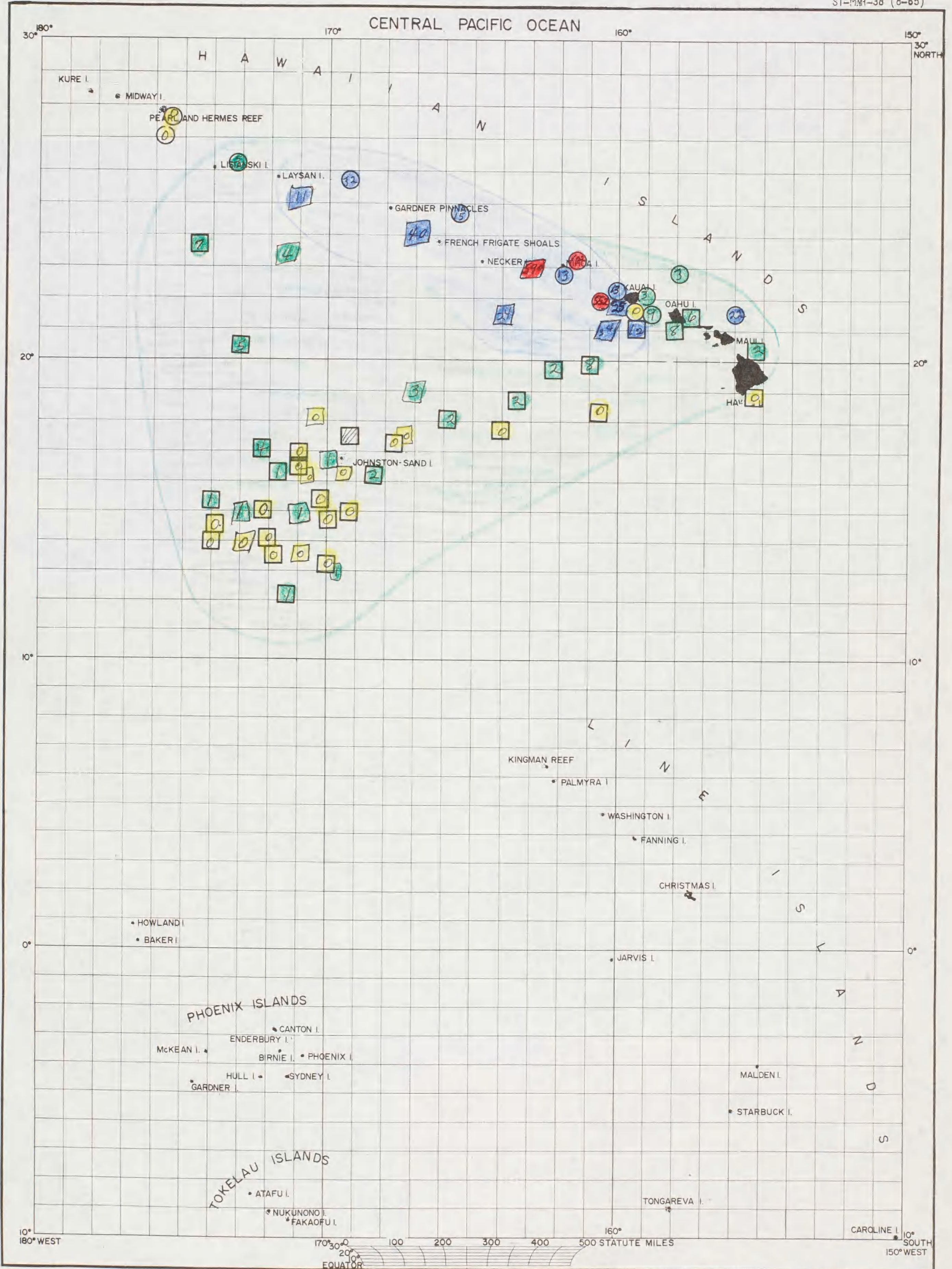
- 1-15 August
- = 16-31 August
- = 0 birds
- ④ = 1-10 "
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- (with diagonal lines) = 101-500 "
- (solid black) = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

AUGUST

SI-MMM-38 (8-65)





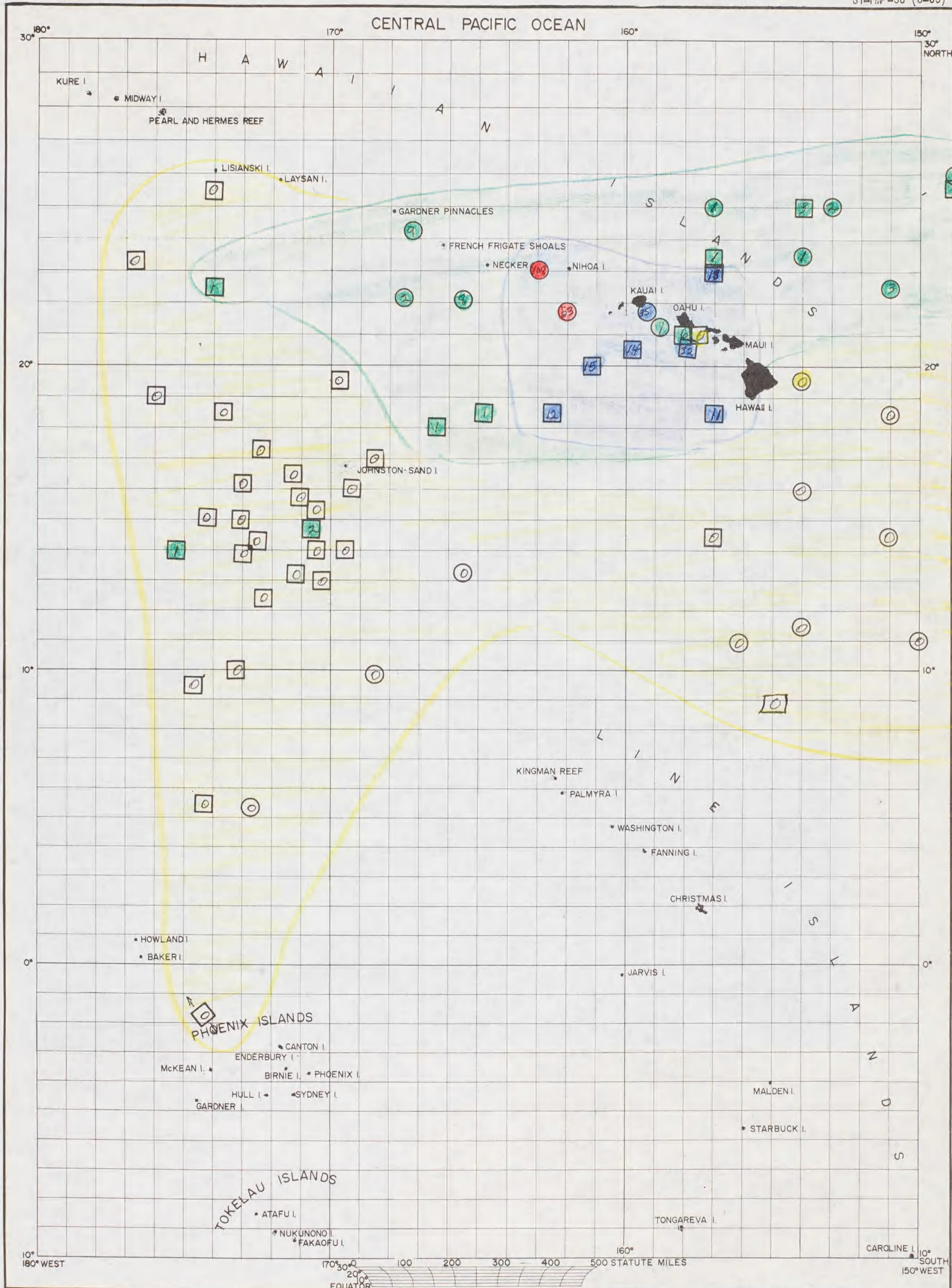
- ☐ 1-15 July
- = 16-31 July
- = 0 birds
- ④ = 1-10 birds
- = 11-25 "
- = 26-50 "
- = 51-100 "
- = 101-500 "
- = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

JULY

SI-MNH-38 (8-65)





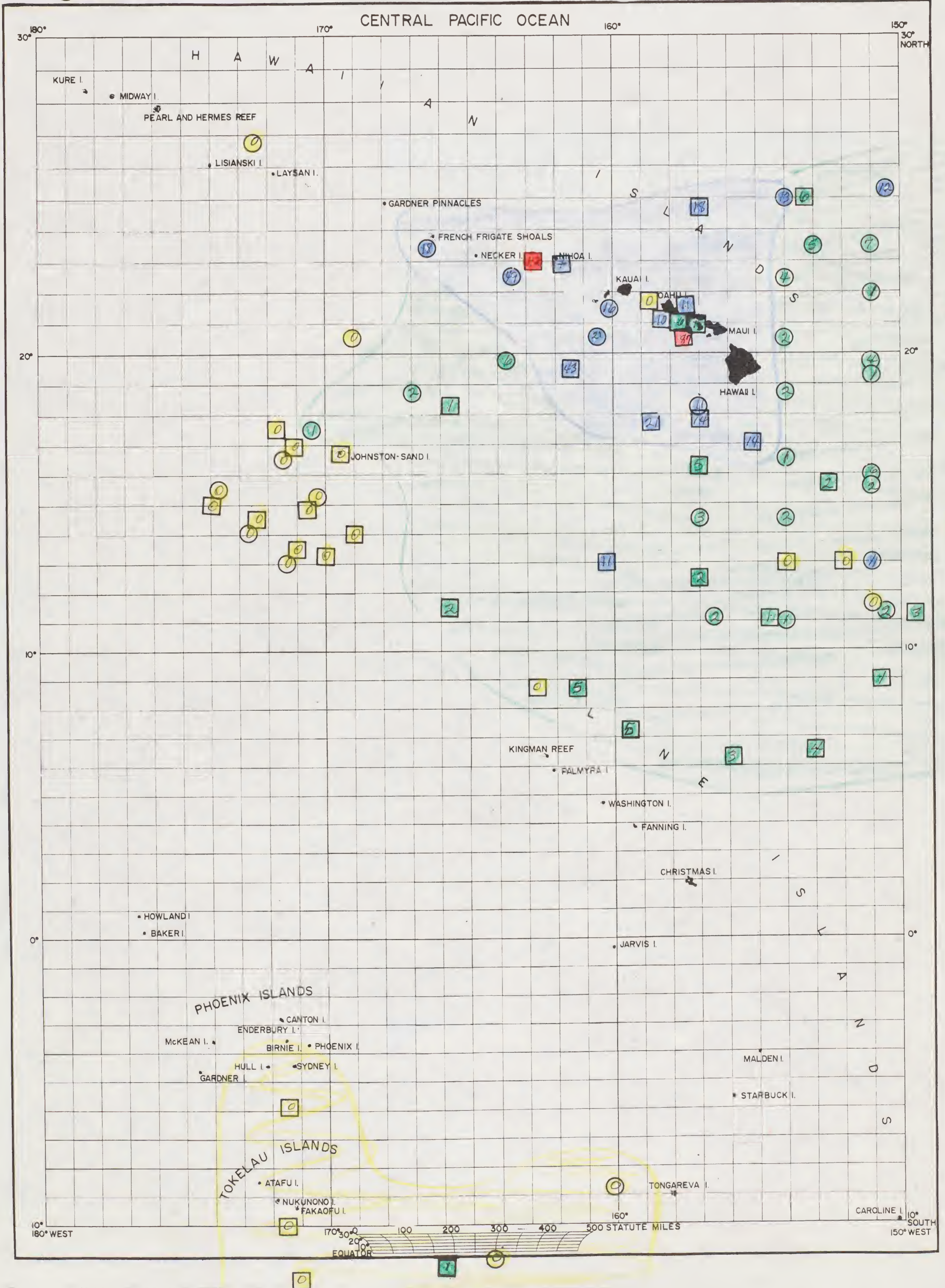
- 1-15 June
- = 16-31 June
- = 0 birds
- ④ = 1-10 "X
- = 11-25 "X
- ⊗ = 26-50 "X
- ⊗ = 51-100 "X
- = 101-500 "X
- = 500+ "X

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

JUNE

SI-MNH-38 (8-65)





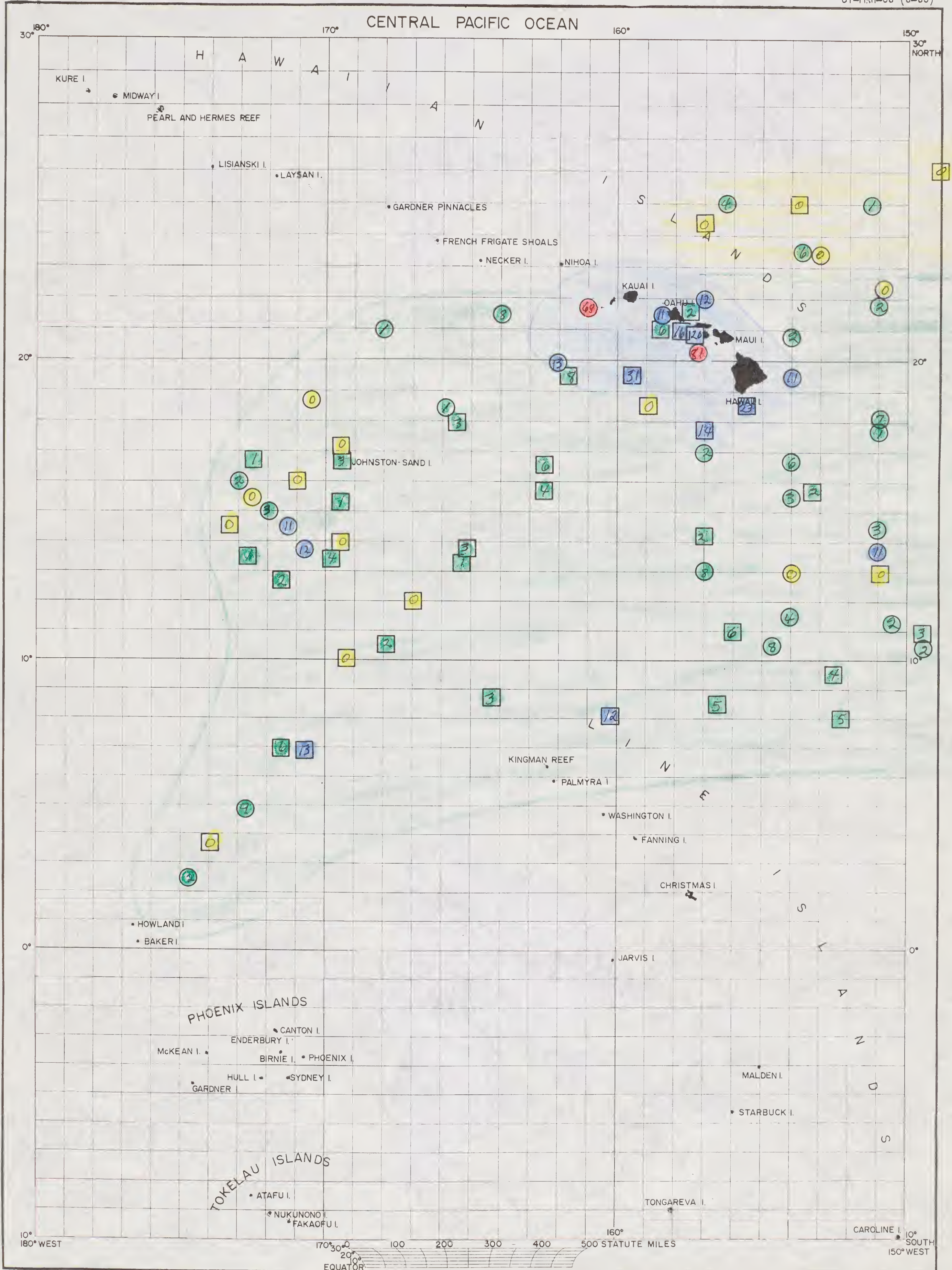
- ☐ 1-15 May
- = 16-31 May
- ⊗ = 0 birds
- ④ = 1-10 " "
- ⊖ = 11-25 " "
- ⊕ = 26-50 " "
- ⊗ = 51-100 " "
- = 101-500 " "
- ⦿ = 500+ " "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

MAY

SI-MNH-38 (8-65)





- ☐ = 1-15 April
- = 16-31 April
- = 0 birds
- ④ = 1-10 "
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 50-100 "
- (with diagonal lines) = 101-500 "
- (solid black) = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

APRIL

SI-MNH-38 (REV. 9-65)





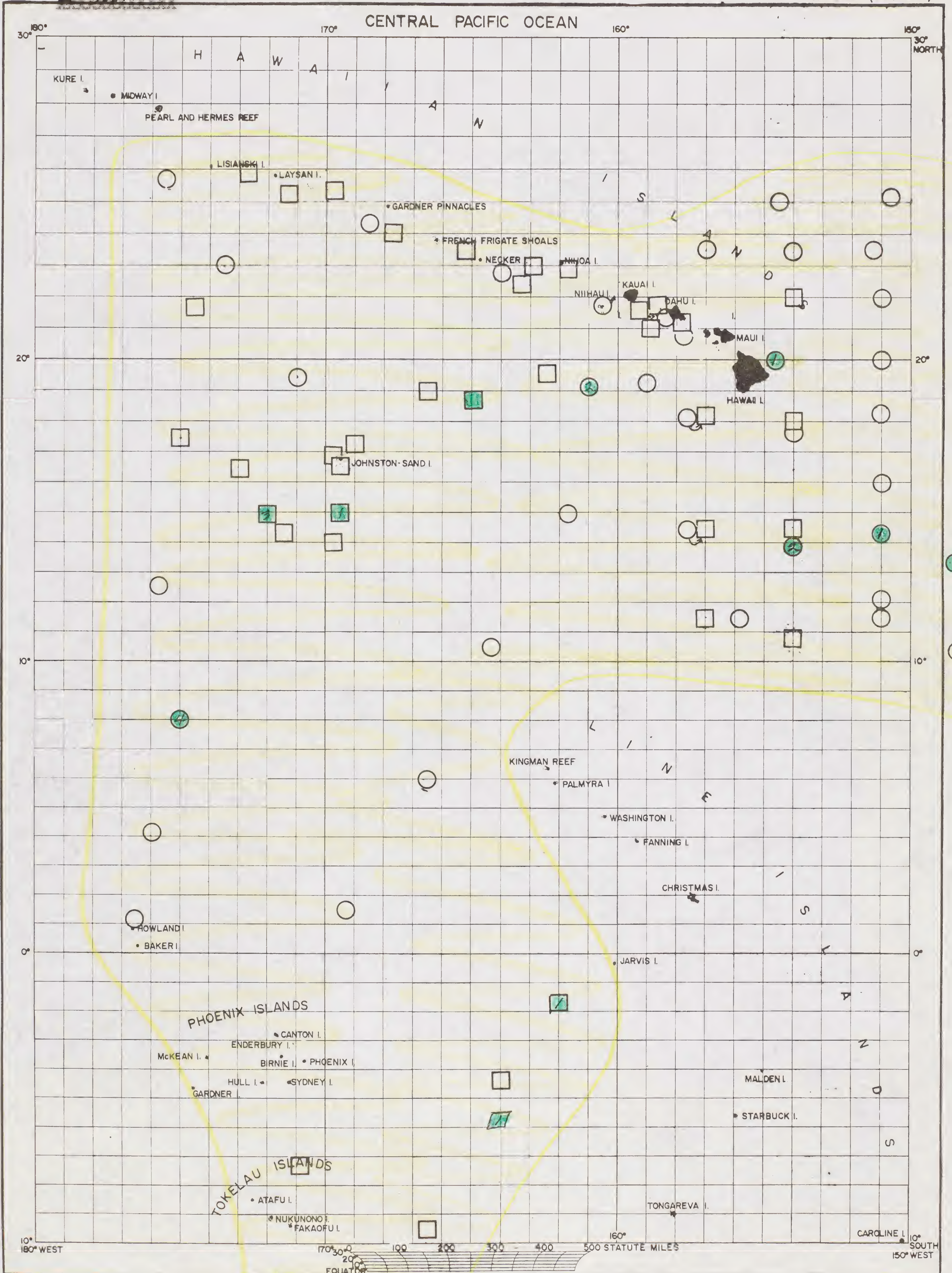
- = 1-15 March
- = 16-31 March
- ④ = 0 birds
- (with 1-10 hatch marks) = 1-10
- (with 11-25 hatch marks) = 11-25
- (with 26-50 hatch marks) = 26-50
- (with 51-100 hatch marks) = 51-100
- (with 101-500 hatch marks) = 101-500
- (with 500+ hatch marks) = 500+

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

MARCH

SI-MNH-38 (REV. 9-85)



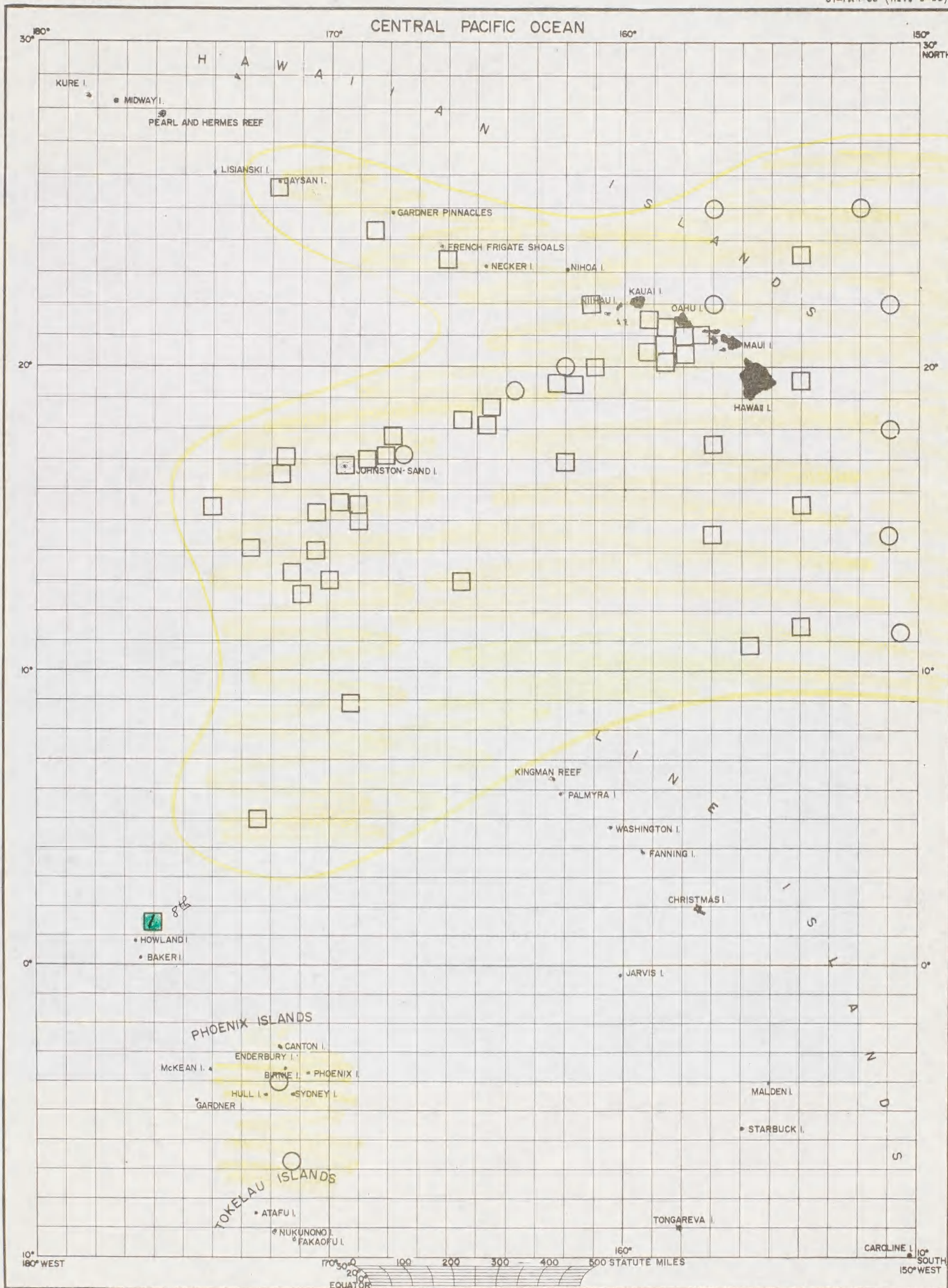


- = 1-15 February
- = 16-31 February
- ④ = 0 birds
- ⊖ = 1-10
- ⊕ = 11-25
- ⊗ = 26-50
- ⊘ = 51-100
- ⊙ = 101-500
- ⦿ = 500+

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance  
FEBRUARY

SI-MNH-38 (REV. 9-65)





□ = 1-15 January  
○ = 16-31 January

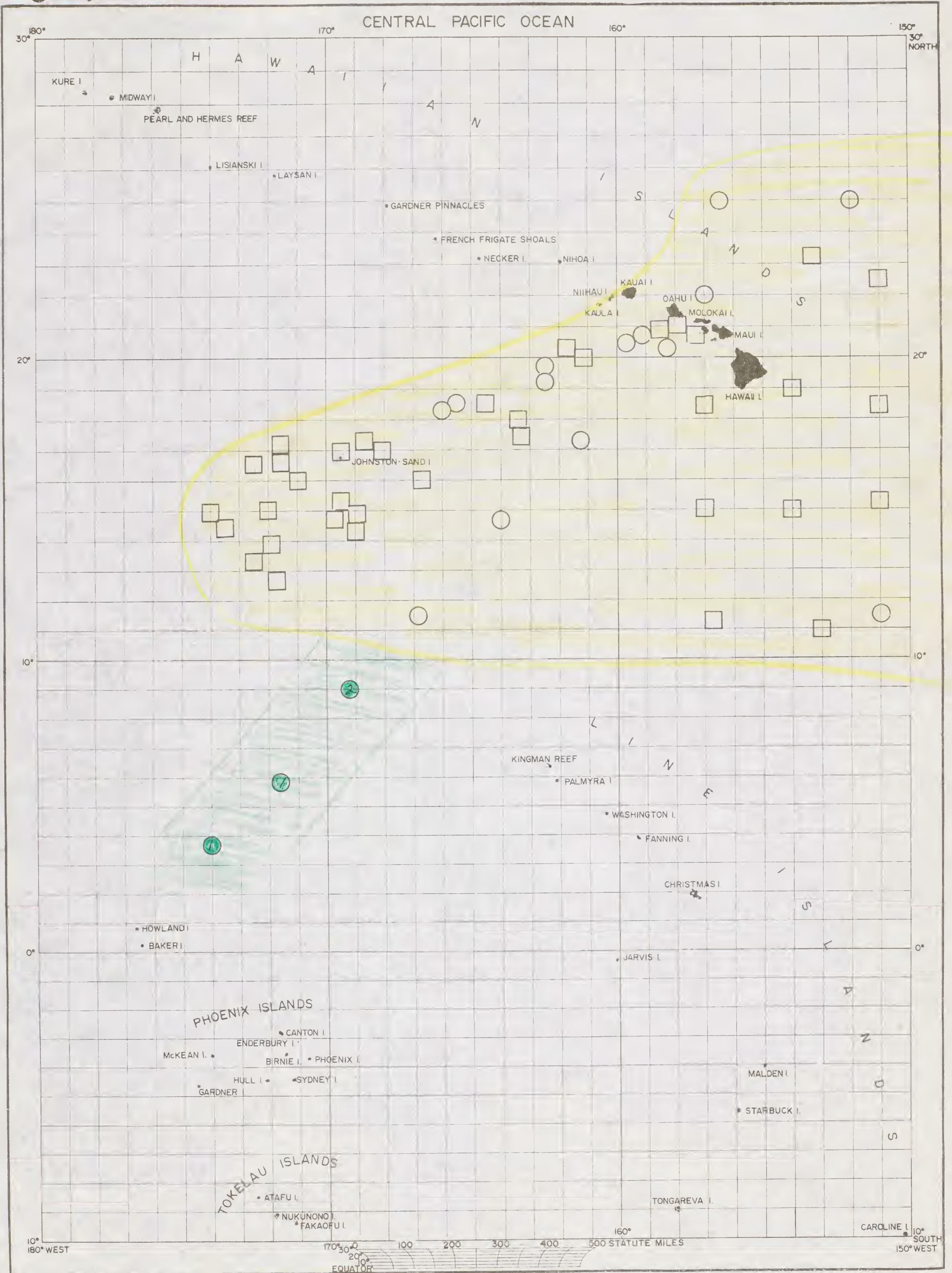
⊙ = 0 birds  
④ = 1-10  
⑤ = 11-25  
⑥ = 26-50  
⑦ = 51-100  
⑧ = 101-500  
⑨ = 500+

# BULWER'S PETREL (*Bulweria bulwerii*)

## At-Sea Distribution and Abundance

JANUARY

SI-MNH-38 (REV. 9-65)





BULWER'S PETREL (Bulweria bulwerii): At-Sea Distribution and Abundance

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Numbers refer to the actual number of birds observed during the day.

Color code:

yellow = 0 birds  
green = 1-10 birds  
blue = 11-50 birds  
red = 51-100 birds  
brown = 100+ birds



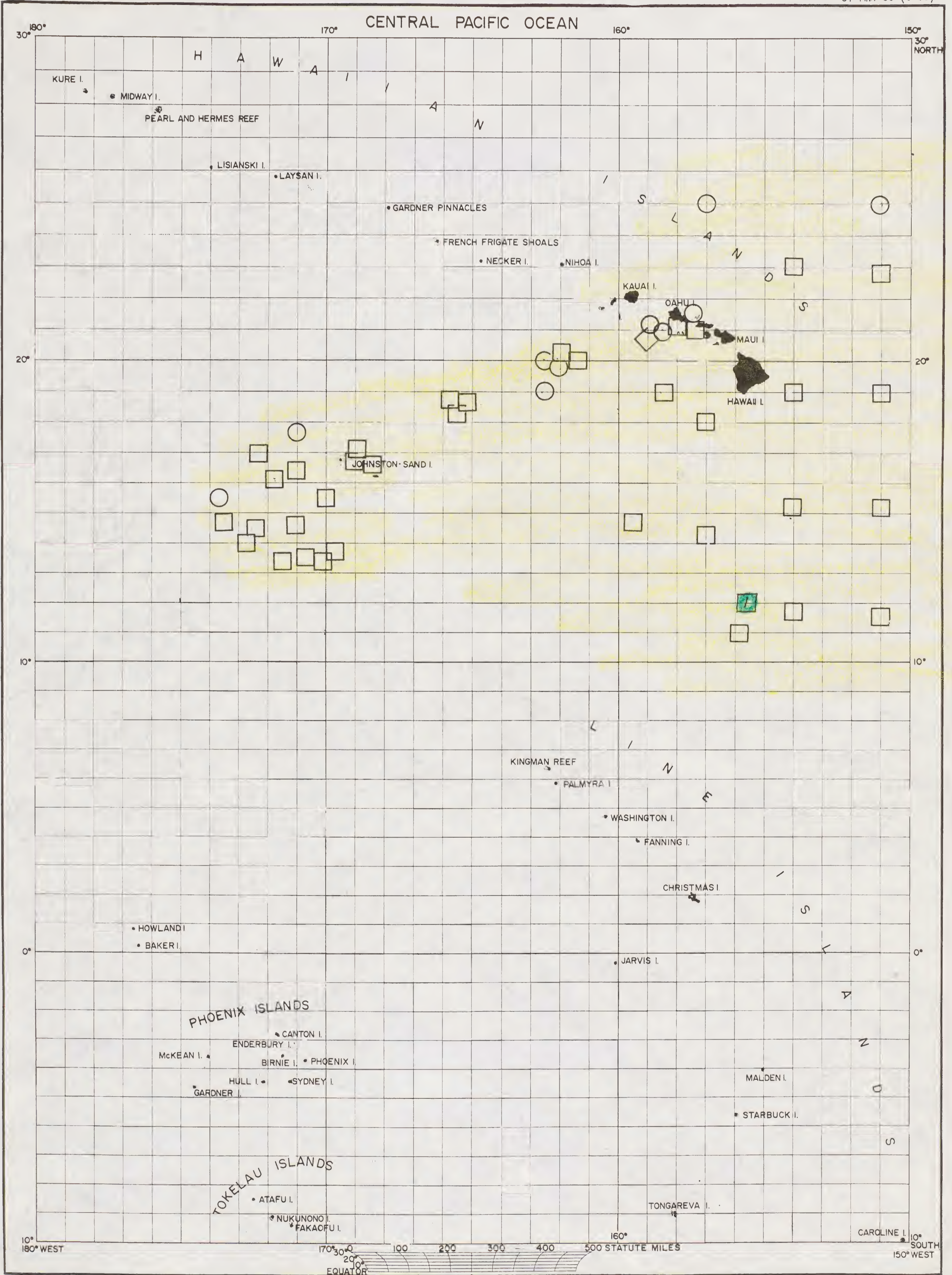
- 1-15 December
- = 16-31 December
- = 0 birds
- (with 4) = 1-10 "
- (with 11) = 11-25 "
- (with 26) = 26-50 "
- (with 51) = 51-100 "
- (with 101) = 101-500 "
- (with 500+) = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

DECEMBER

SI-MNH-38 (8-65)





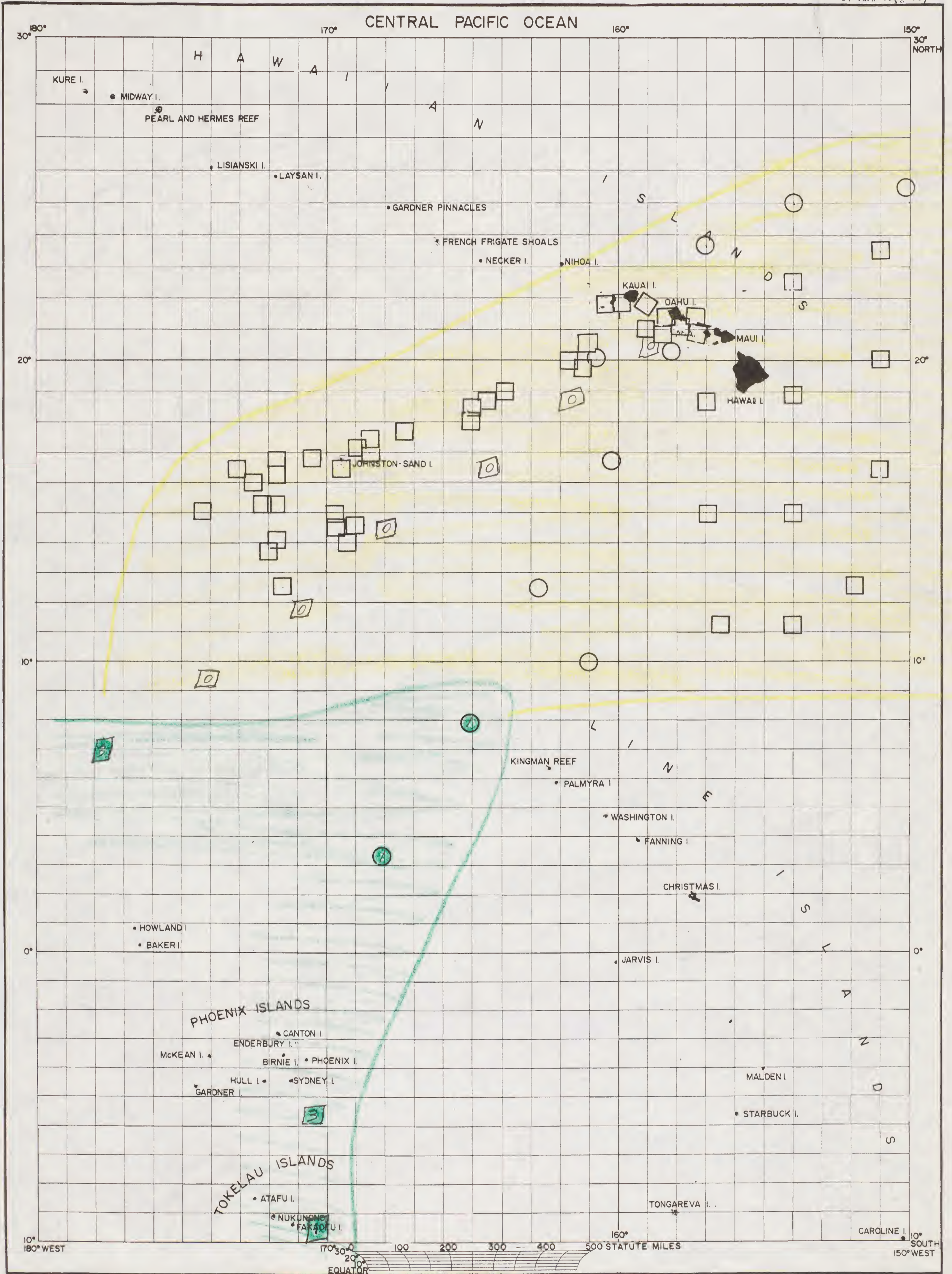
- 1-15 November
- = 16-31 November
- = 0 birds
- ④ = 1-10 "
- ⊙ = 11-25 "
- ⊚ = 26-50 "
- ⦶ = 51-100 "
- = 101-500 "
- ⦿ = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

NOVEMBER

SI-MNH-38(8-55)





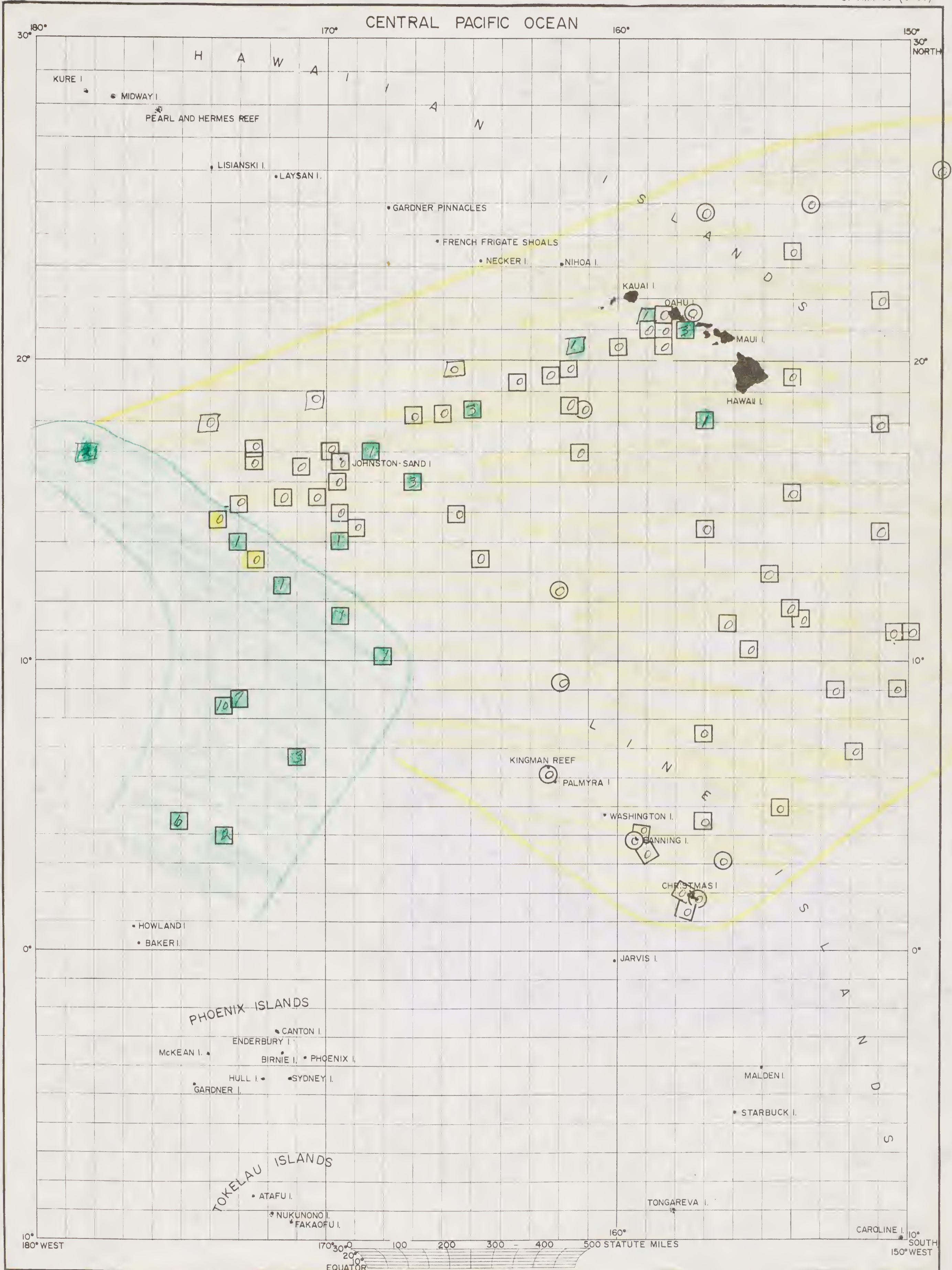
- 1-15 October
- = 16-31 October
- = 0 birds
- (with 1) = 1-10 "
- (with 2) = 11-25 "
- (with 3) = 26-50 "
- (with 4) = 51-100 "
- (with 5) = 101-500 "
- (with 6) = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

OCTOBER

SI-MNH-38 (8-65)





□ 1-15 September

○ = 16-31 September

○ = 0 birds

○ (with 4) = 1-10 "

○ (with 11-25) = 11-25 "

○ (with 26-50) = 26-50 "

○ (with 51-100) = 51-100 "

● (with 101-500) = 101-500 "

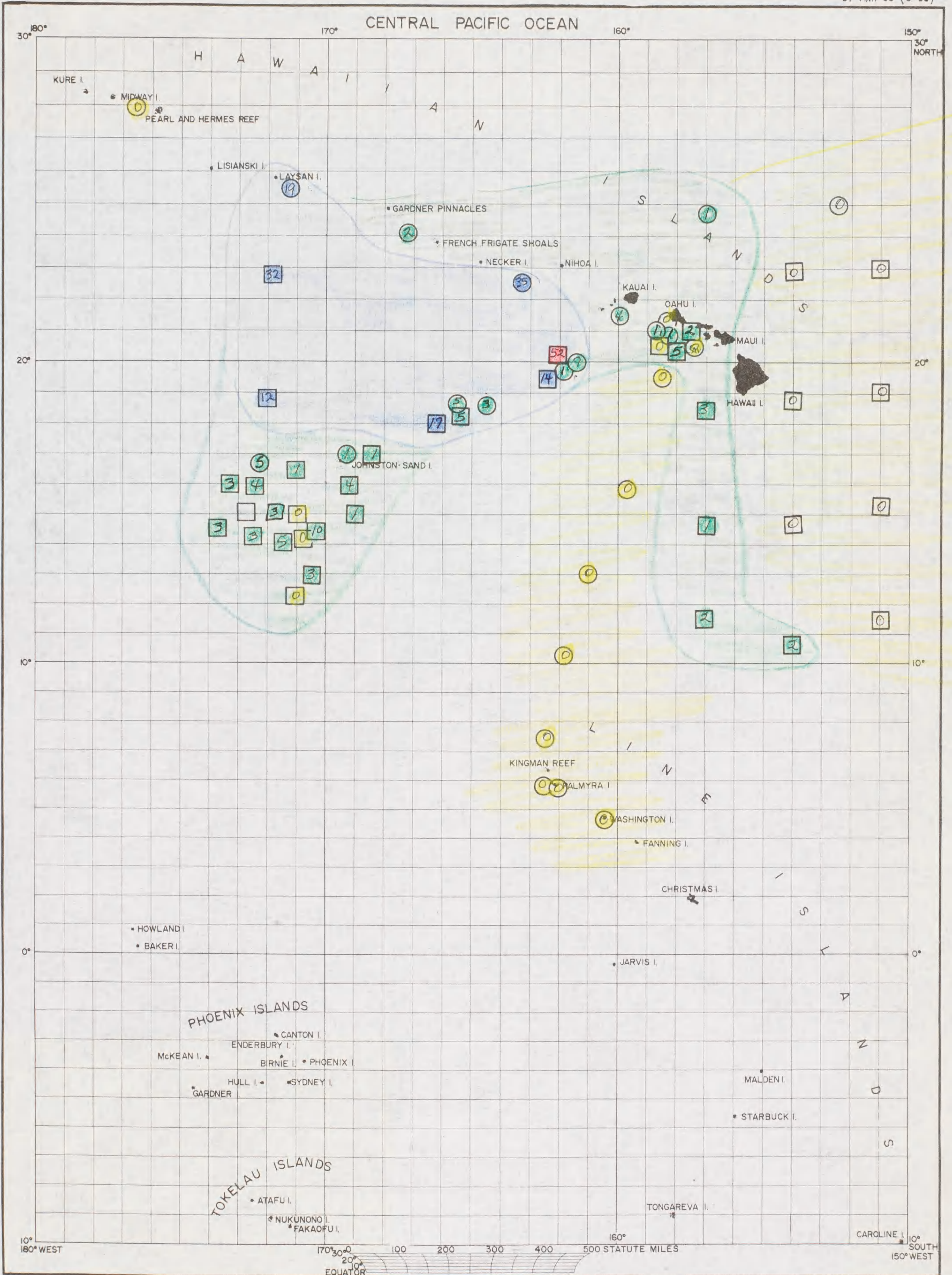
● (with 500+) = 500+ "

# BULWER'S PETREL (*Bulweria bulwerii*)

## At-Sea Distribution and Abundance

SEPTEMBER

SI-MNH-38 (8-65)





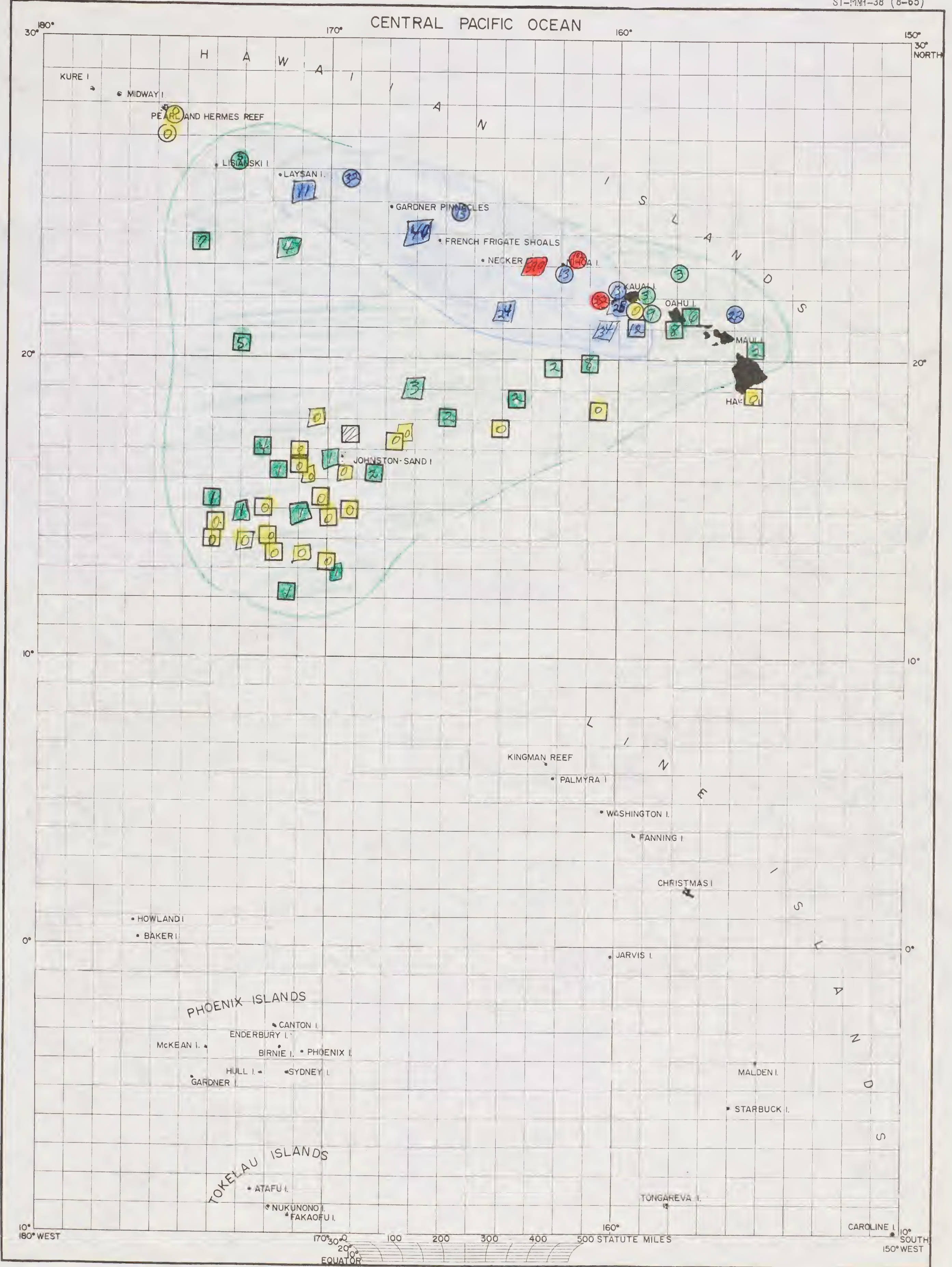
- 1-15 August
- = 16-31 August
- = 0 birds
- ④ = 1-10 "
- ⊖ = 11-25 "
- ⊕ = 26-50 "
- ⊗ = 51-100 "
- = 101-500 "
- ⦿ = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

AUGUST

SI-MNH-38 (8-65)





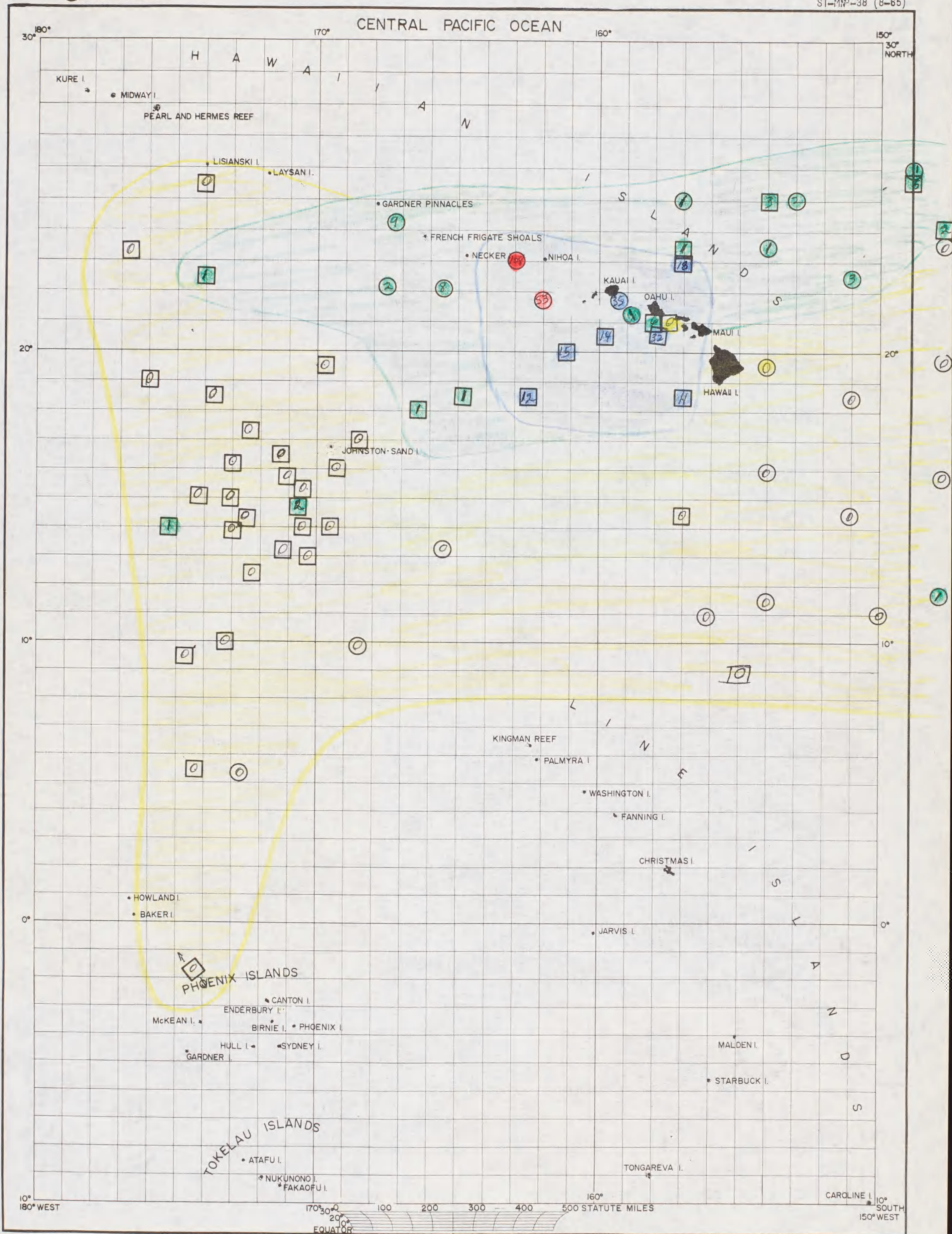
- ☐ 1-15 July
- = 16-31 July
- = 0 birds
- ④ = 1-10 birds
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- = 101-500 "
- (with horizontal lines) = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

JULY

SI-MNP-38 (8-65)





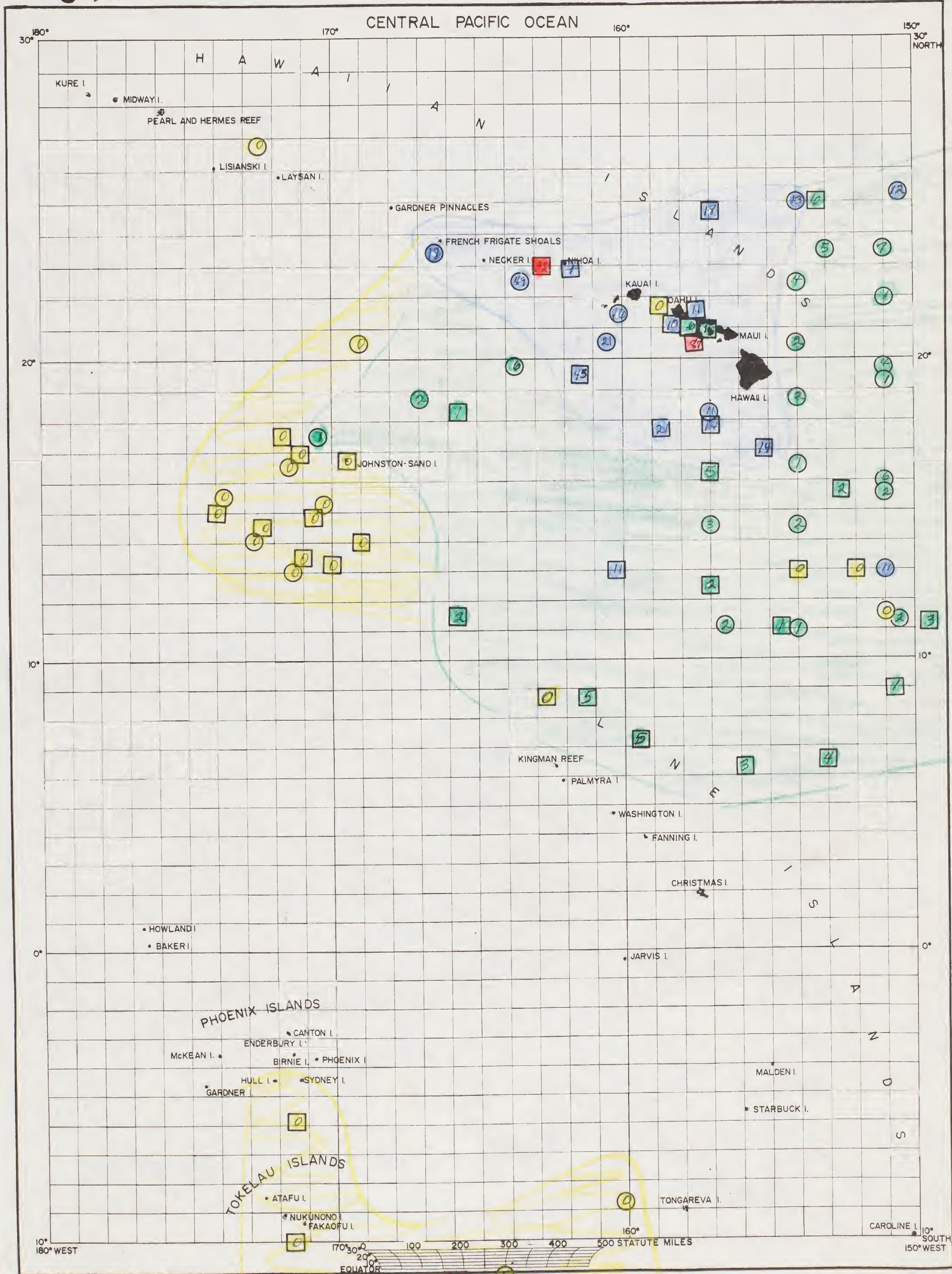
- 1-15 June
- = 16-31 June
- = 0 birds
- (with 1-10) = 1-10
- (with 11-25) = 11-25
- (with 26-50) = 26-50
- (with 51-100) = 51-100
- (with 101-500) = 101-500
- (with 500+) = 500+

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

JUNE

SI-MNH-38 (8-65)





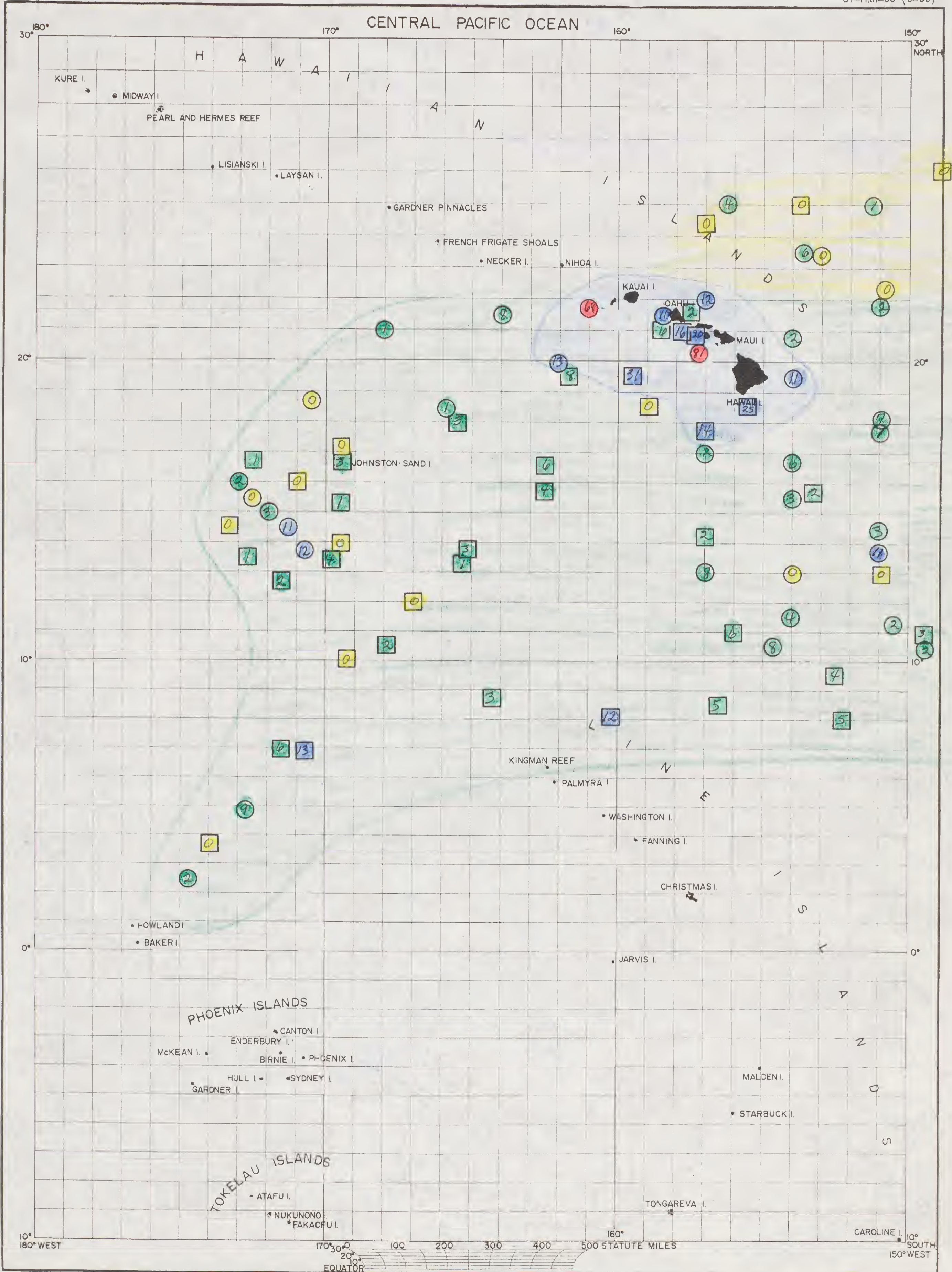
- ☐ 1-15 May
- = 16-31 May
- ⊗ = 0-10
- ④ = 1-10
- ⊗ = 11-25
- ⊗ = 26-50
- ⊗ = 51-100
- = 101-500
- = 500+

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

MAY

SI-MNH-38 (8-65)





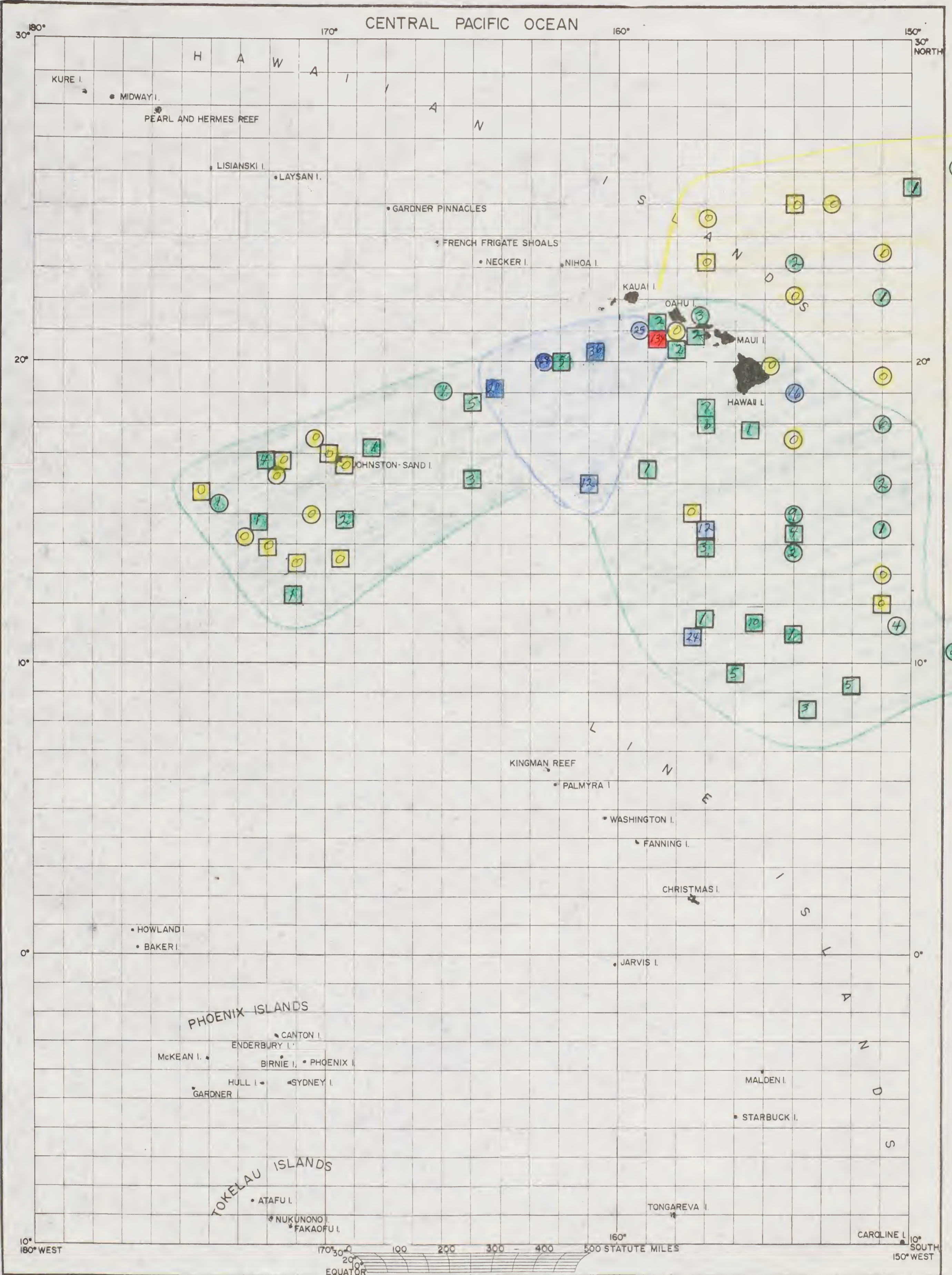
- ☐ = 1-15 April
- = 16-31 April
- = 0 birds
- ④ = 1-10 "
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 50-100 "
- (with diagonal lines) = 101-500 "
- (solid) = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

APRIL

SI-MNH-38 (REV. 9-65)





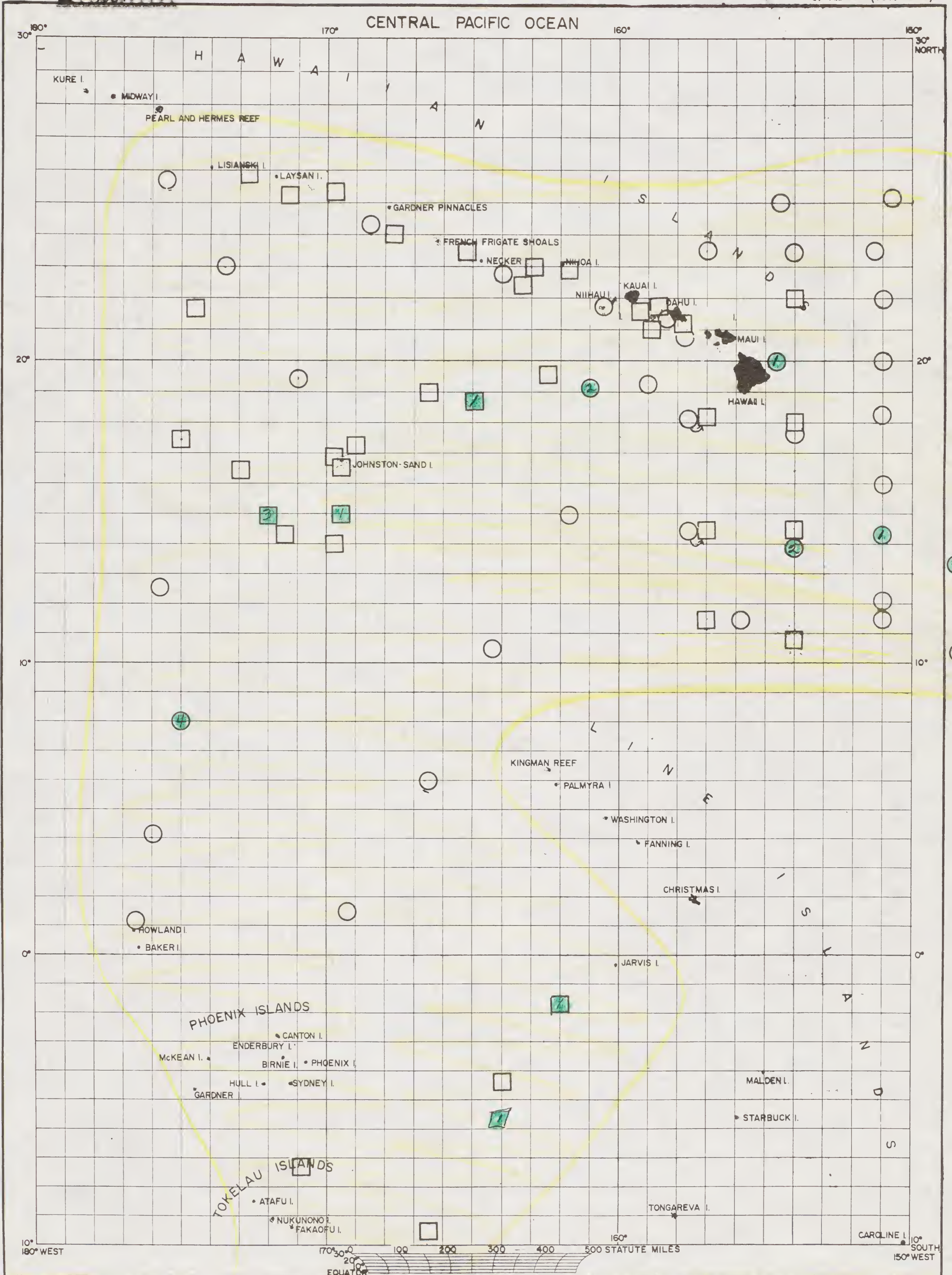
- = 1-15 March
- = 16-31 March
- ④ = 0 birds
- ⊖ = 1-10 "
- ⊖ = 11-25 "
- ⊖ = 26-50 "
- ⊖ = 51-100 "
- = 101-500 "
- = 500+ "

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

MARCH

SI-MNH-38 (REV. 9-85)





- = 1-15 February
- = 16-31 February

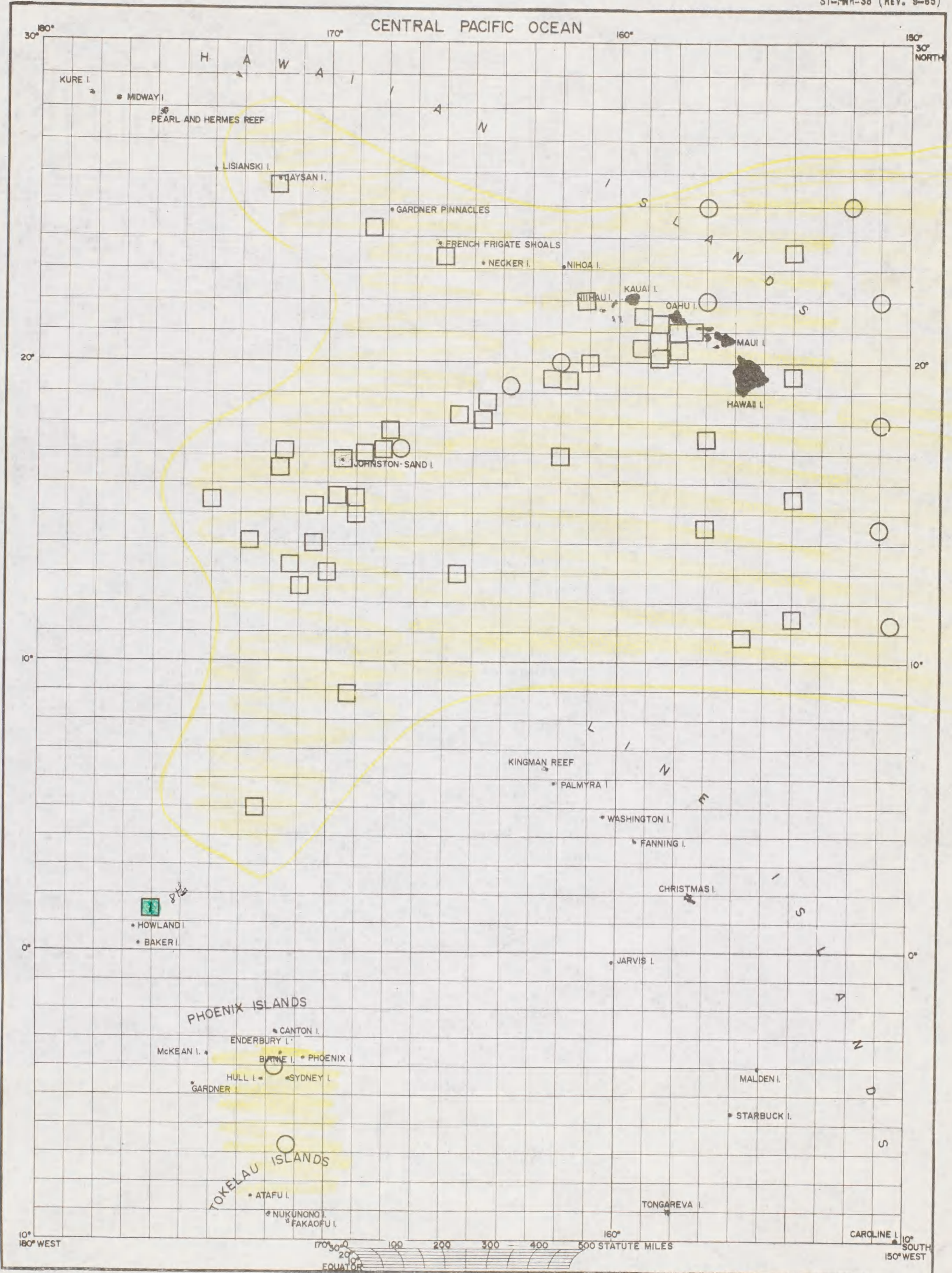
- ⊗ = 0-1000
- ⊗ = 1000-2000
- ⊗ = 2000-3000
- ⊗ = 3000-4000
- ⊗ = 4000-5000
- ⊗ = 5000-6000
- ⊗ = 6000-7000

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

FEBRUARY

SI-MNH-38 (REV. 9-85)





□ = 1-15 January  
 ○ = 16-31 January

○ = 0-500  
 ⊙ = 501-1000  
 ⊕ = 1001-2500  
 ⊗ = 2501-5000  
 ⊘ = 5001-10000  
 ⊙ = 10001-50000  
 ⊗ = 50000+

BULWER'S PETREL (*Bulweria bulwerii*)

At-Sea Distribution and Abundance

JANUARY

SI-MNH-38 (REV. 9-65)

