

BLACK-FOOTED ALBATROSS (Diomedea nigripes): At-Sea Distribution and Abundance  
LAYSAN ALBATROSS (Diomedea immutabilis)

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.

Red indicates the distribution of Laysan Albatross. Green (1-9 birds) and Blue (10+ birds) represent the Black-footed Albatross.

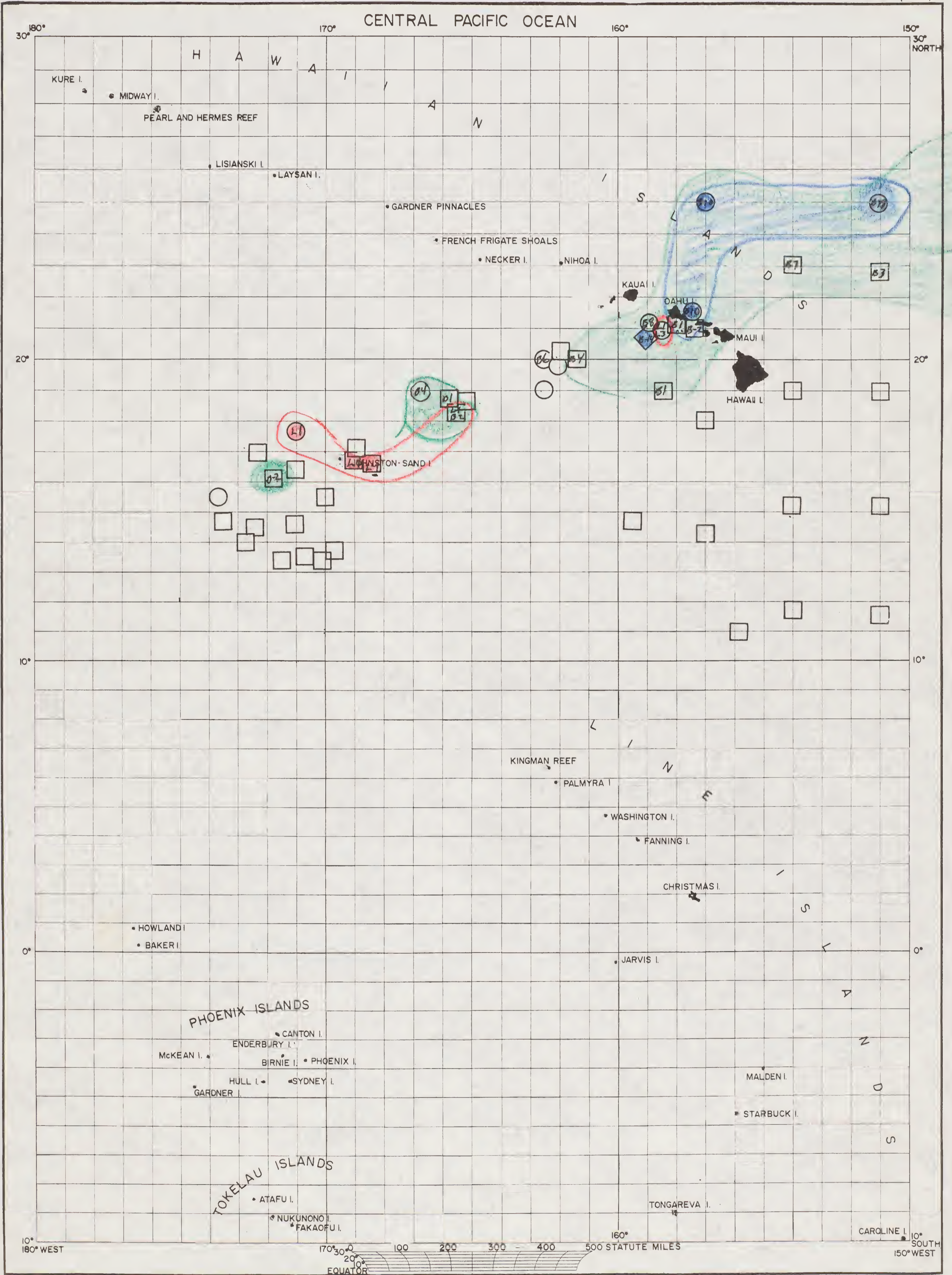
- 1-15 December
- = 16-31 December
- ⊗ XXXXX
- ⊗ XXXXX
- ⊗ XXXXX
- ⊗ XXXXX
- ⊗ XXXXX
- XXXXX
- XXXXX

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

DECEMBER

SI-MNH-38 (8-65)



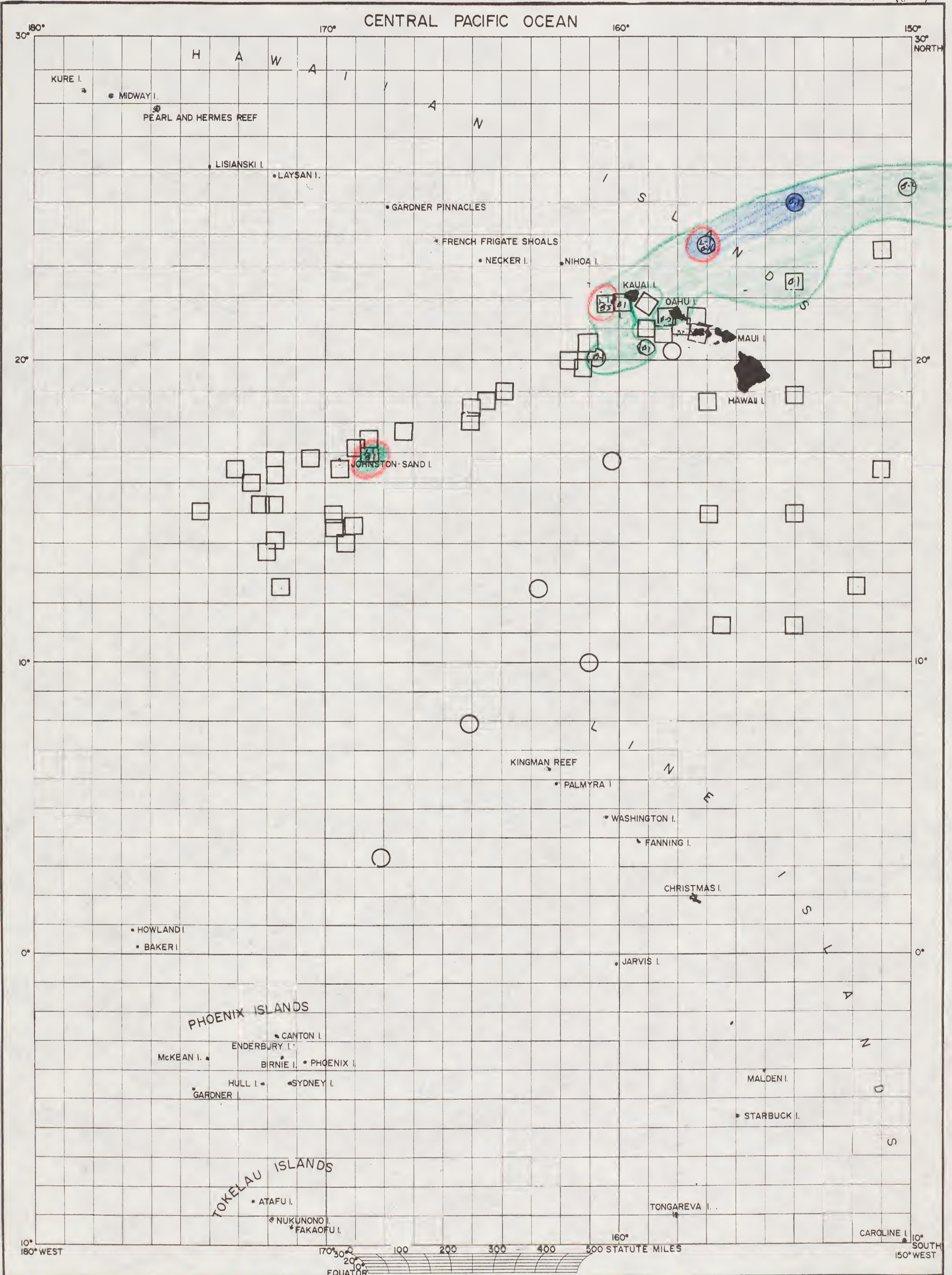
- 1-15 November
- = 16-31 November
- = 0 birds
- = 1-10 birds
- = 11-25 birds
- = 26-50 birds
- = 51-100 birds
- = 101-500 birds
- = 500+ birds

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

NOVEMBER

SI-MNH-38(8-55)



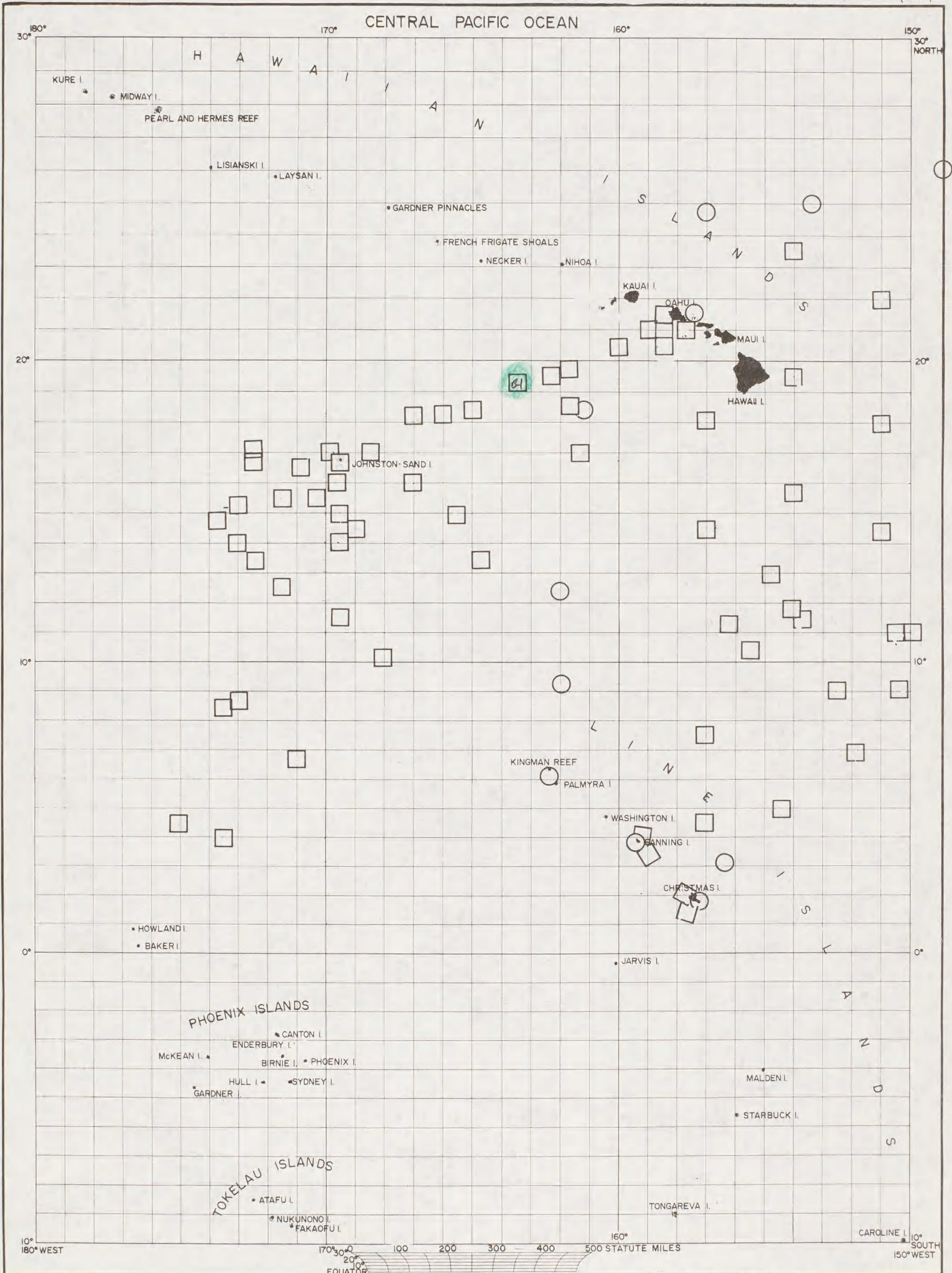
- 1-15 October
- = 16-31 October
- ⊗ XXXXX  
= 0 birds
- ⊗ XXXXX  
= 1-25
- ⊗ XXXXX  
= 25-50
- ⊗ XXXXX  
= 51-100
- ⊗ XXXXX  
= 101-500
- XXXXX  
= 500+

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

OCTOBER

SI-MNH-38 (8-65)



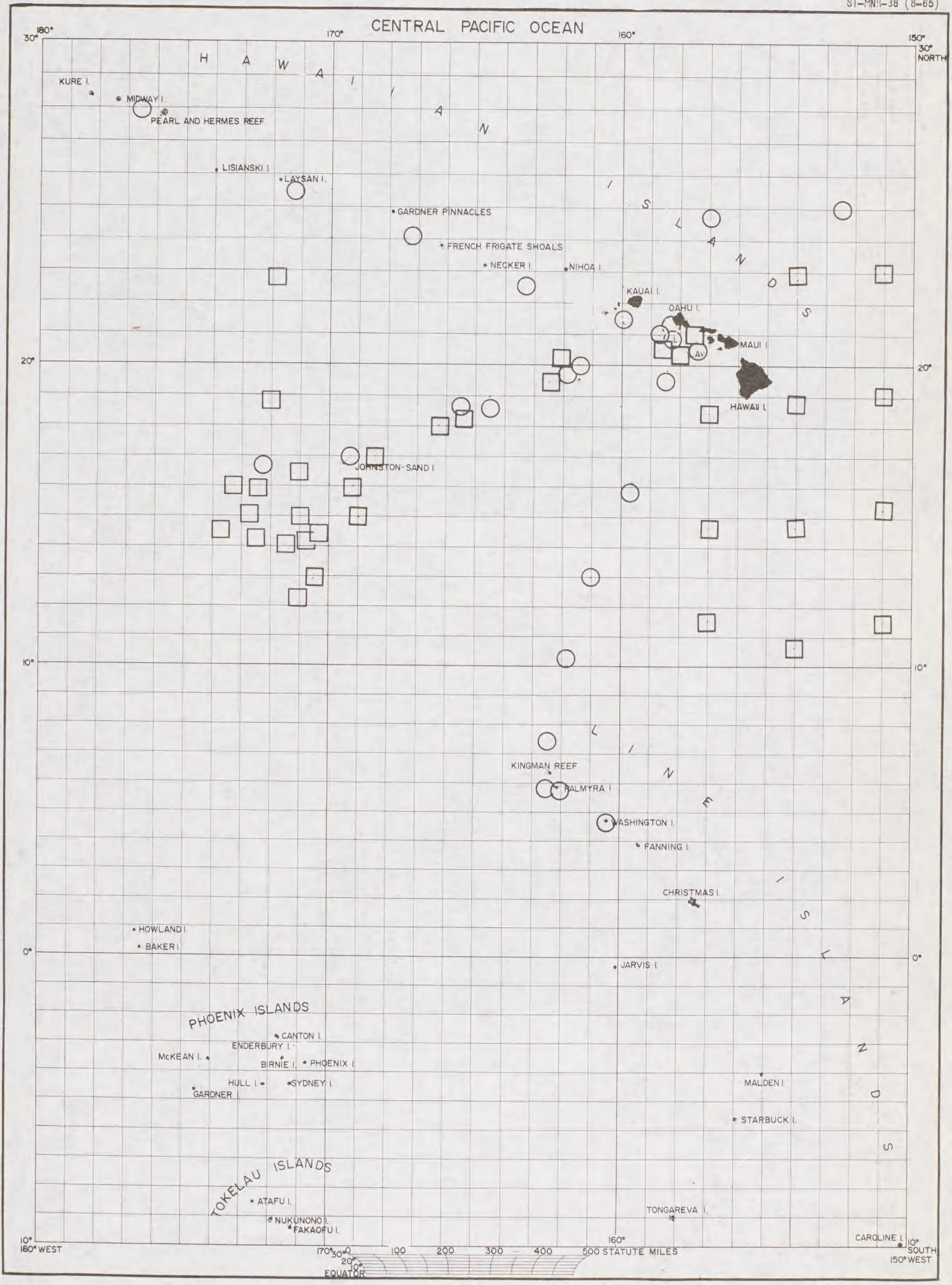
- 1-15 September
- = 16-31 September
- = 0 birds
- (with 1-10) = 1-10 "
- (with 11-25) = 11-25 "
- (with 26-50) = 26-50 "
- (with 51-100) = 51-100 "
- (with 101-500) = 101-500 "
- (with 500+) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

SEPTEMBER

SI-MNH-38 (8-65)



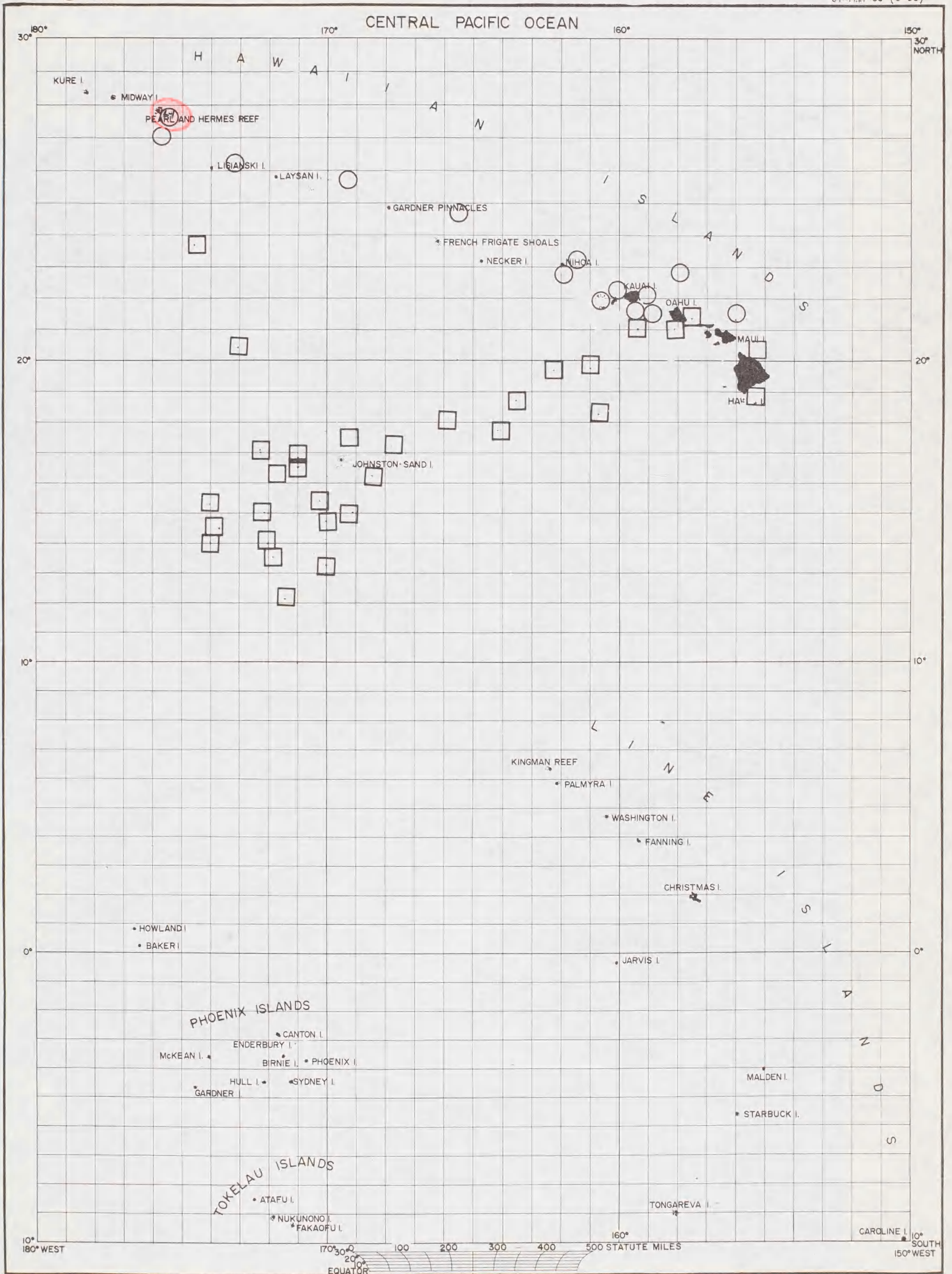
- 1-15 August
- = 16-31 August
- = 0 birds
- (with 1) = 1-10 "
- (with 11-25) = 11-25 "
- (with 26-50) = 26-50 "
- (with 51-100) = 51-100 "
- (with 101-500) = 101-500 "
- (with 500+) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

AUGUST

SI-MNH-38 (8-65)



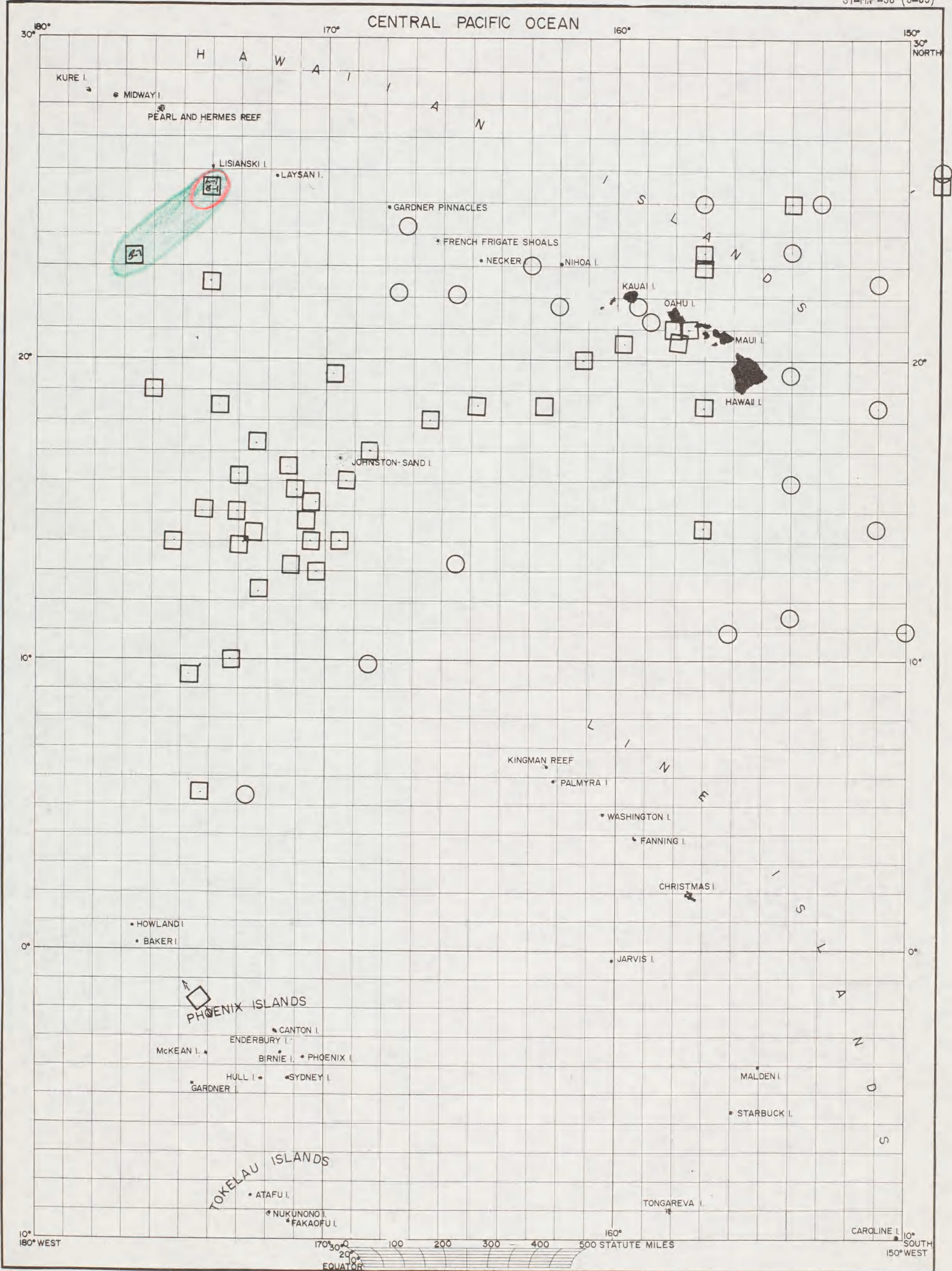
- ☐ 1-15 July
- = 16-31 July
- = 0 birds
- ④ = 1-10 birds
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- (with diagonal lines) = 101-500 "
- (solid black) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

JULY

SI-MNH-38 (8-65)



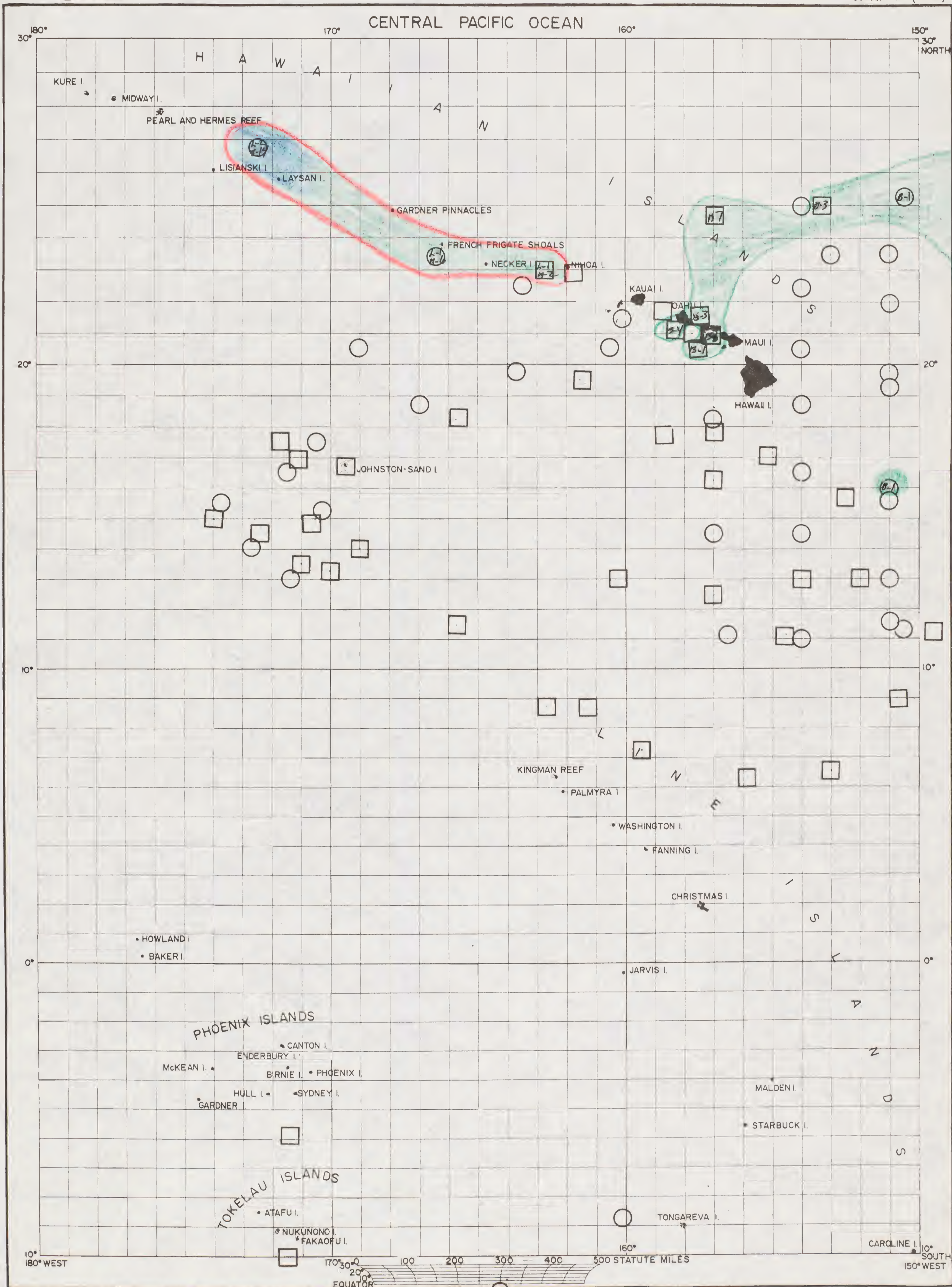
- 1-15 June
- = 16-31 June
- = 0 birds
- (with 1) = 1-10 "
- (with 11) = 11-25 "
- (with 26) = 26-50 "
- (with 51) = 51-100 "
- (with 101) = 101-500 "
- (with 500) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

JUNE

SI-MNH-38 (8-65)





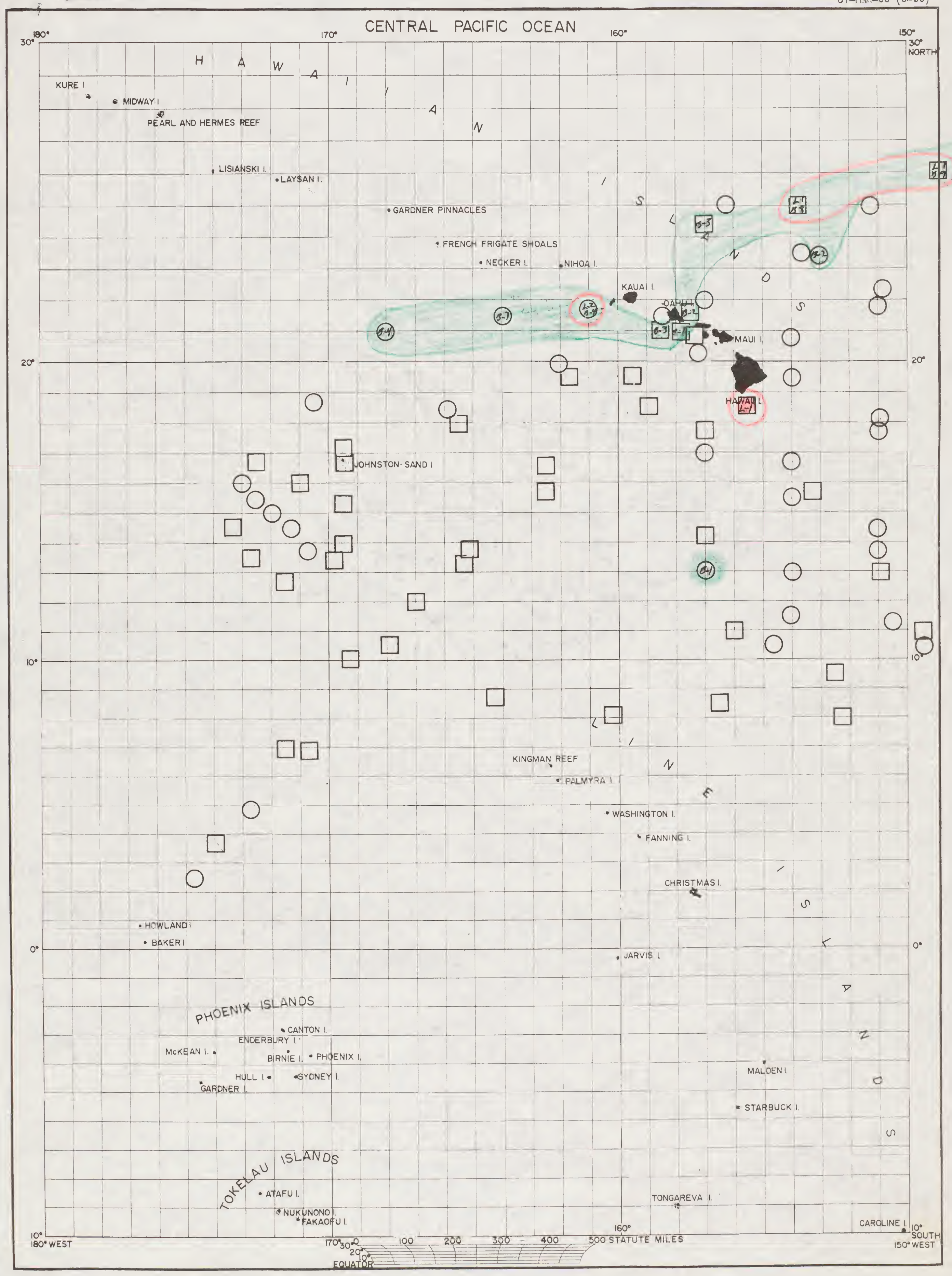
- 1-15 May
- = 16-31 May
- = 0 birds
- (with 1-10) = 1-10 "
- (with 11-25) = 11-25 "
- (with 26-50) = 26-50 "
- (with 51-100) = 51-100 "
- (with 101-500) = 101-500 "
- (with 500+) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

MAY

SI-MNH-38 (8-65)



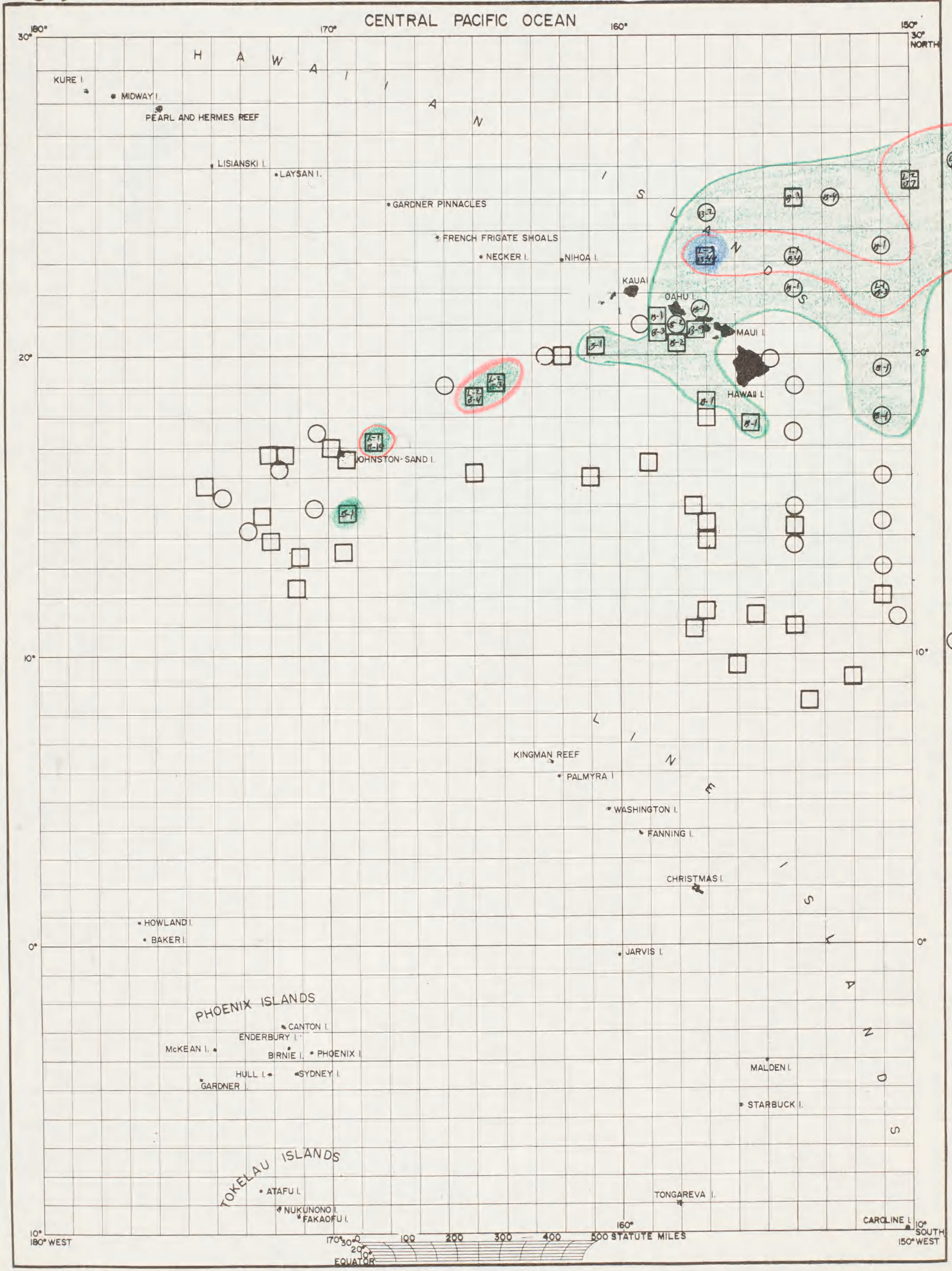
- ☐ = 1-15 April
- ◯ = 16-31 April
- ◯ = 0 birds
- ④ = 1-10 "
- ◯ = 11-25 "
- ◯ = 26-50 "
- ◯ = 50-100 "
- ◯ = 101-500 "
- ◯ = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

APRIL

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



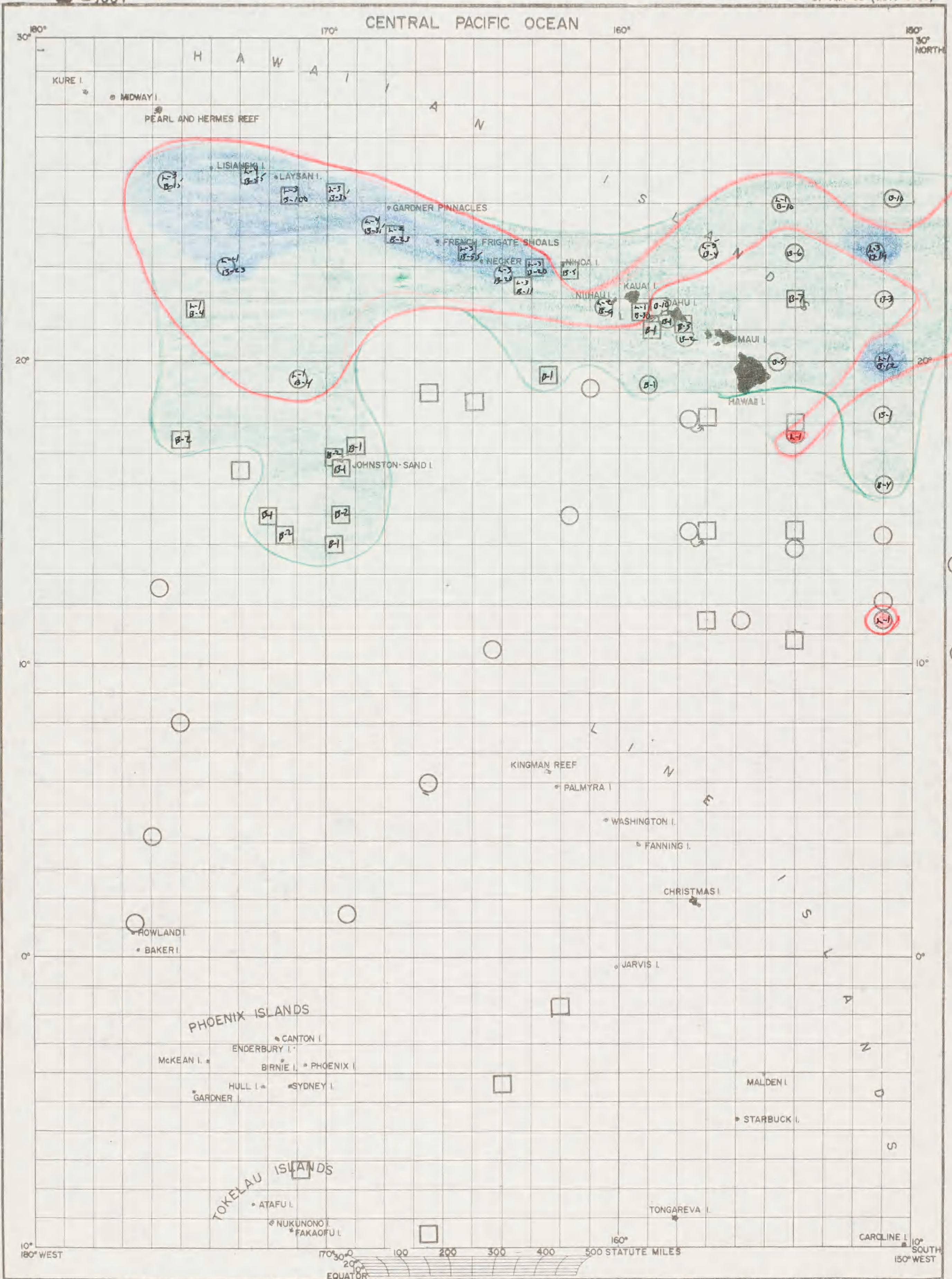
- = 1-15 March
- = 16-31 March
- ④ = 0 birds
- (with 1) = 1-10 "
- (with 11) = 11-25 "
- (with 26) = 26-50 "
- (with 51) = 51-100 "
- (with 101) = 101-500 "
- (with 500) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

MARCH

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



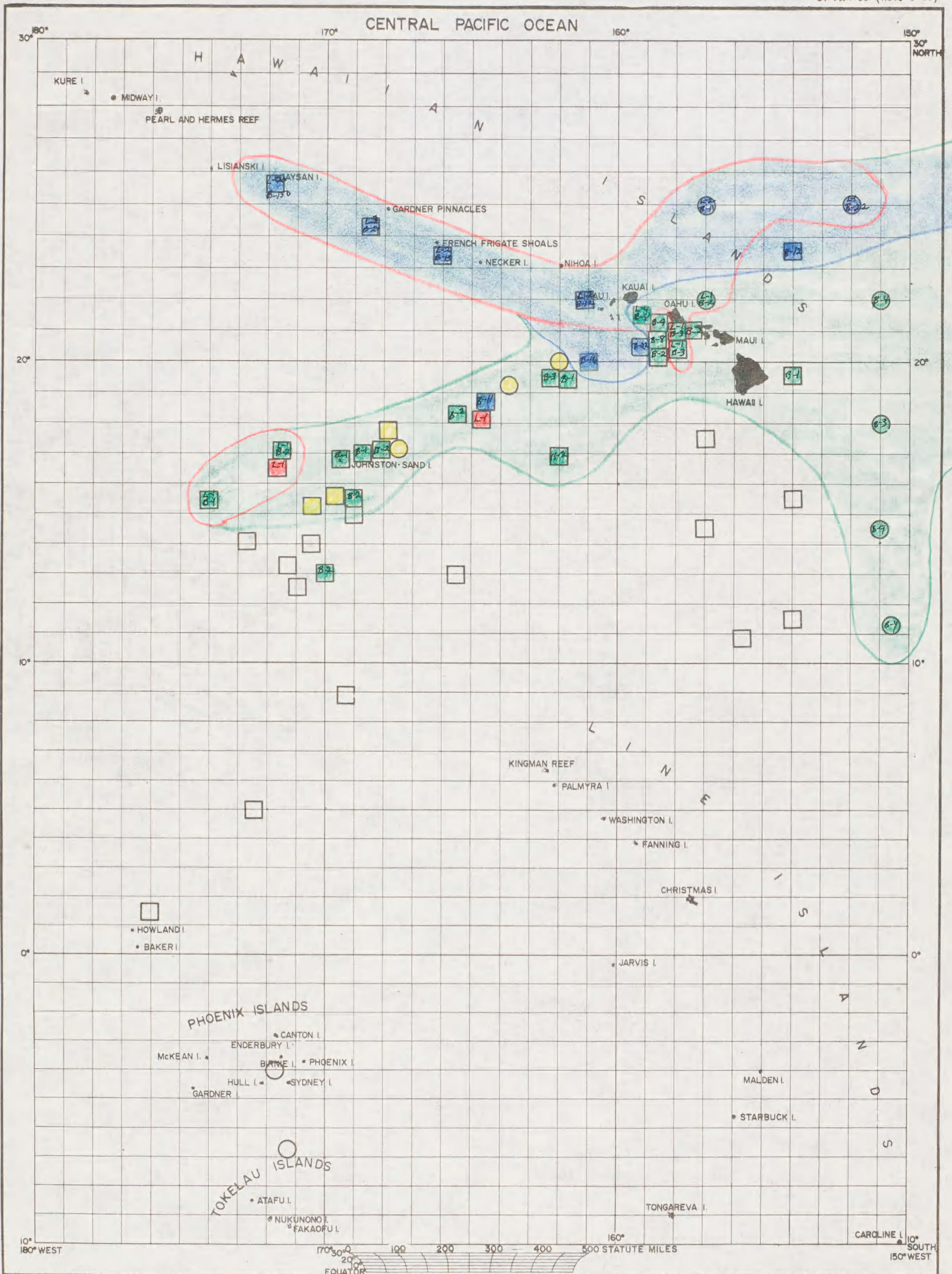
- = 1-15 February
- = 16-31 February
- ④ = 0 birds
- = 1-10 "
- = 11-25 "
- = 26-50 "
- = 51-100 "
- = 101-500 "
- = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

FEBRUARY

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



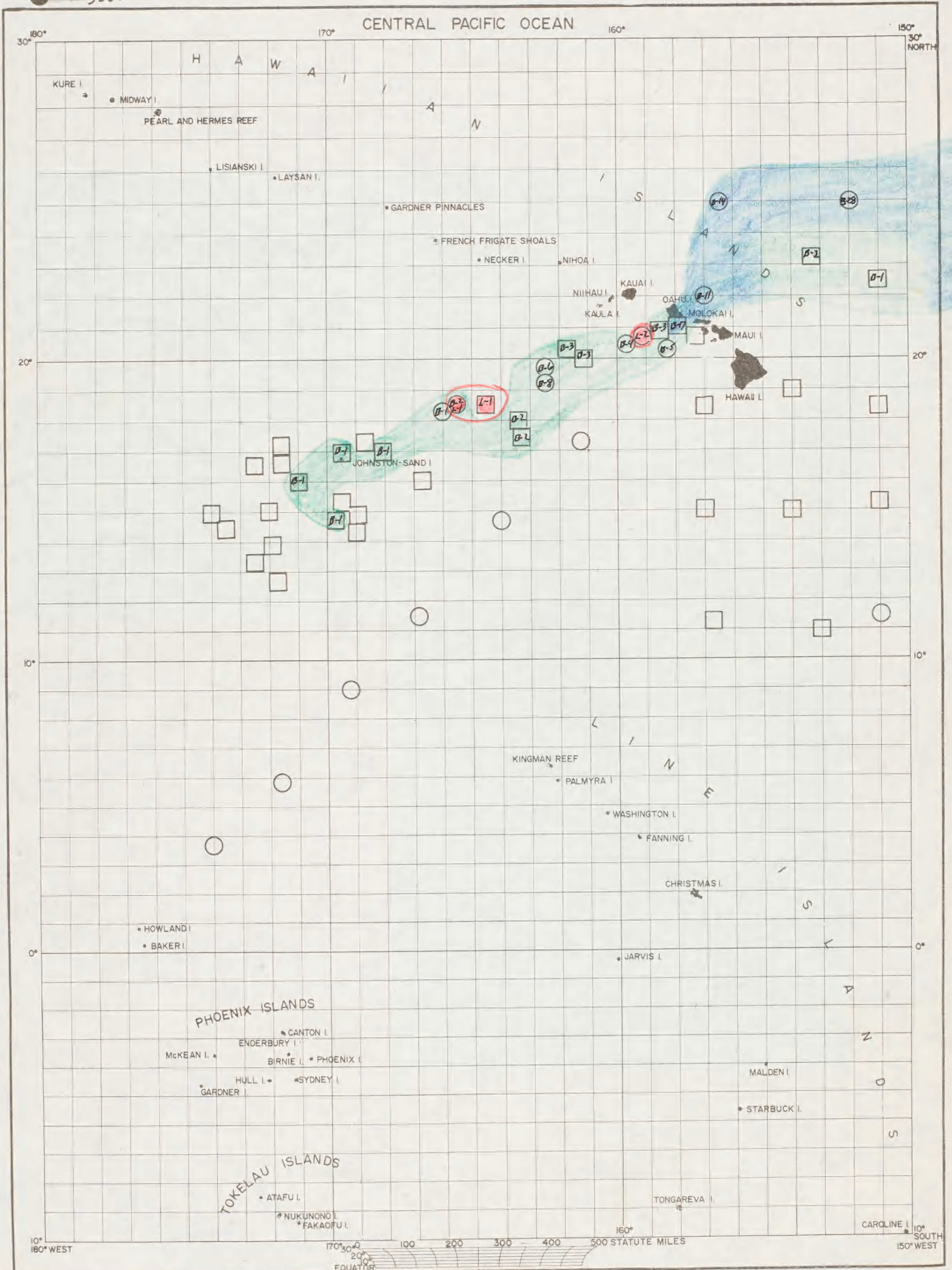
- ☐ = 1-15 January
- = 16-31 January
- = 0 birds
- ④ = 1-10 "
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- (with diagonal lines) = 101-500 "
- (solid) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

JANUARY

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



BLACK-FOOTED ALBATROSS (Diomedea nigripes): At-Sea Distribution and Abundance  
LAYSAN ALBATROSS (Diomedea immutabilis)

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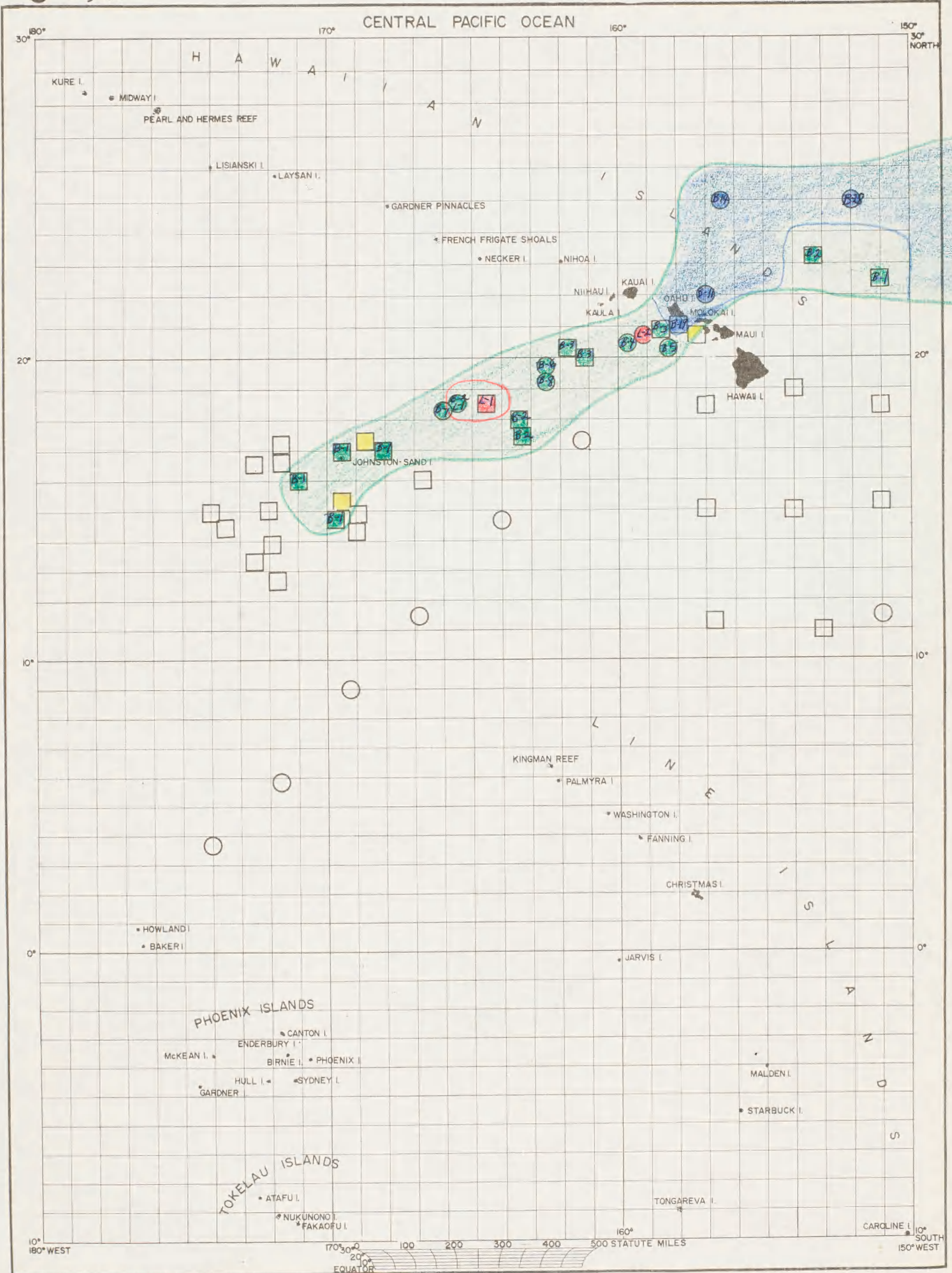
- = 1-15 January
- = 16-31 January
- = 0 birds
- ④ = 1-10 "
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- (with diagonal lines) = 101-500 "
- (solid) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

JANUARY

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



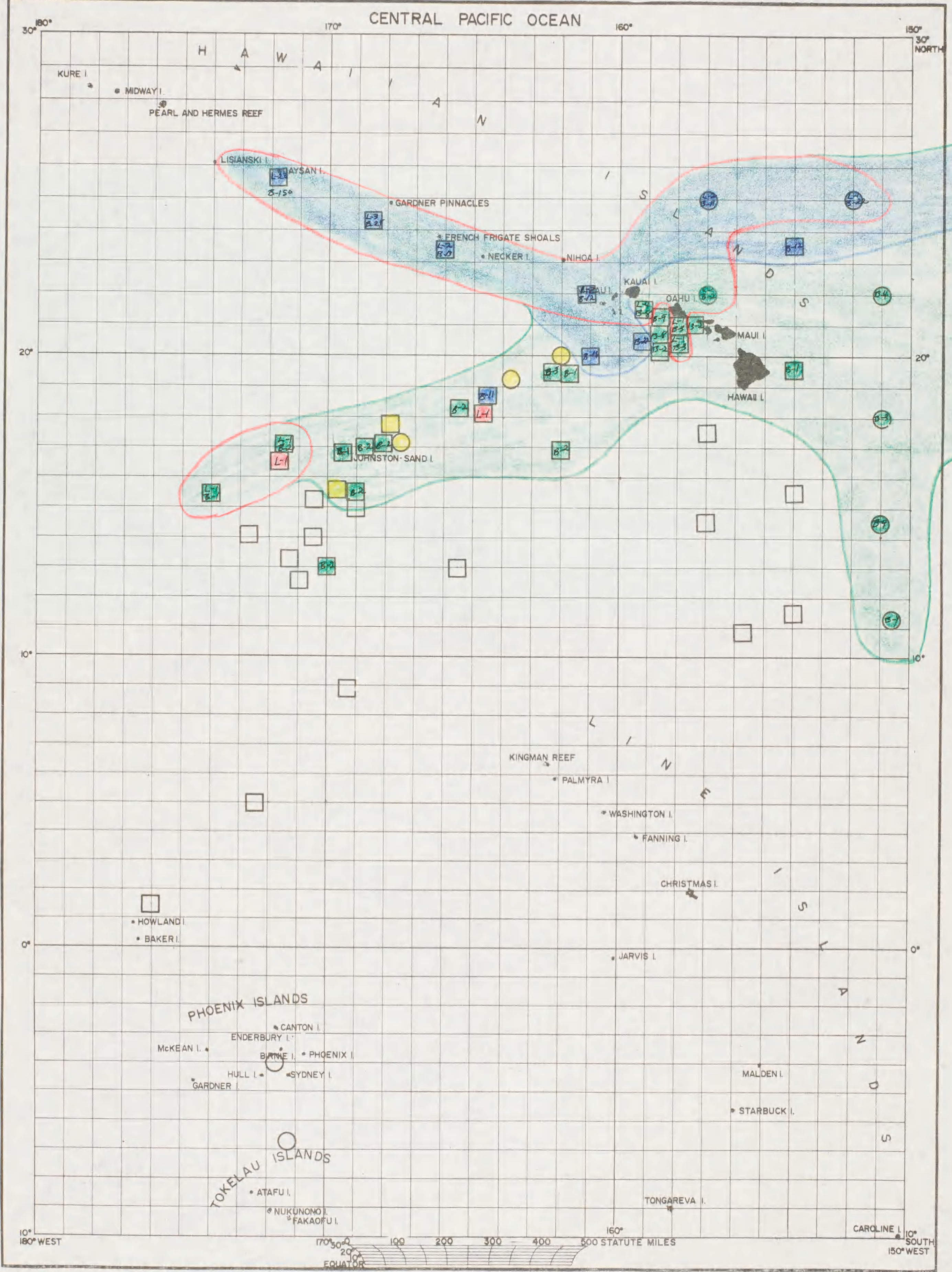
- = 1-15 February
- = 16-31 February
- ④ = 0 birds
- = 1-10 "
- = 11-25 "
- = 26-50 "
- = 51-100 "
- = 101-500 "
- = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

FEBRUARY

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





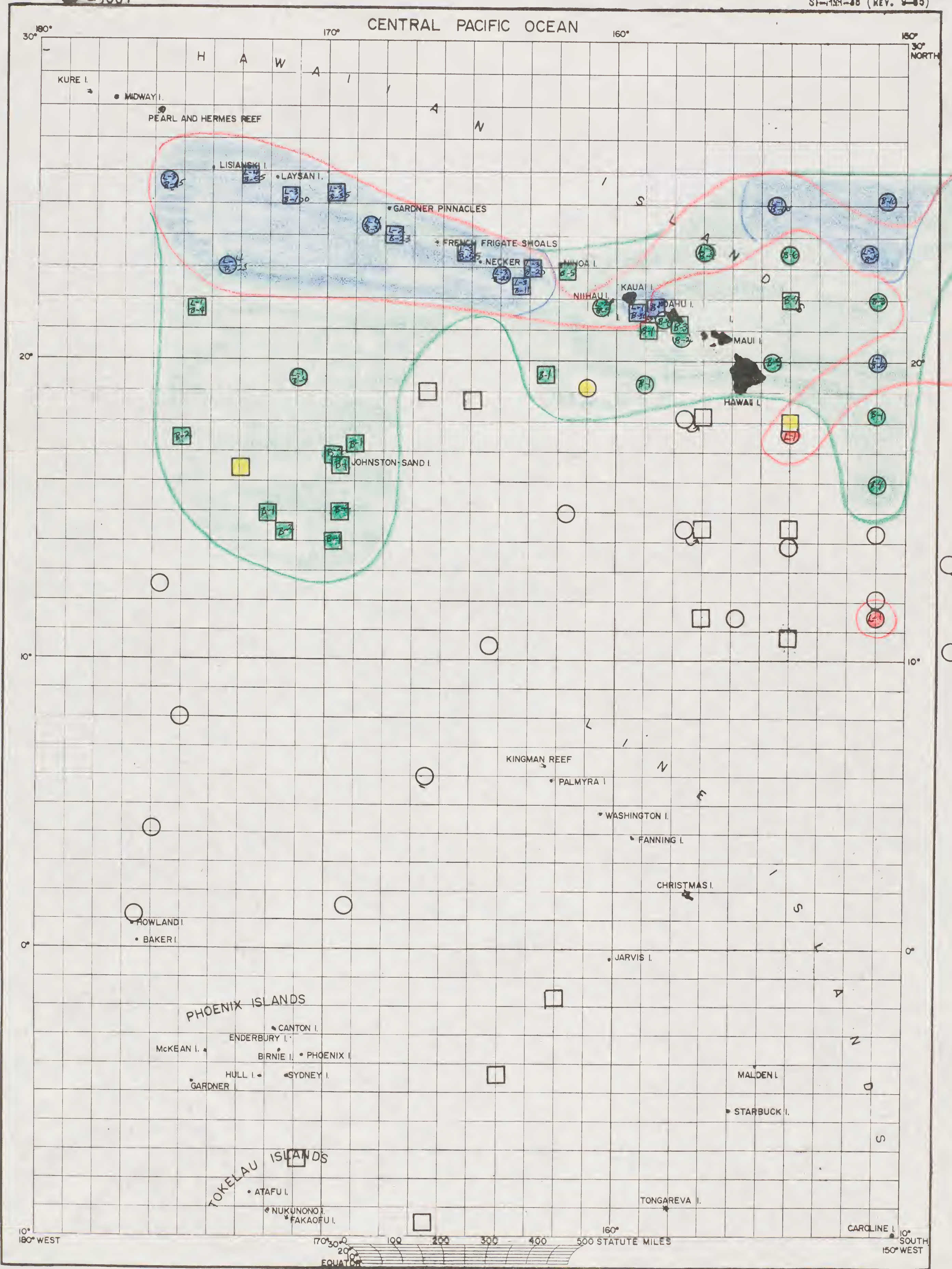
- = 1-15 March
- = 16-31 March
- ④ = 0 birds
- (with 1) = 1-10 "
- (with 11-25) = 11-25 "
- (with 26-50) = 26-50 "
- (with 51-100) = 51-100 "
- (with 101-500) = 101-500 "
- (with 500+) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

MARCH

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



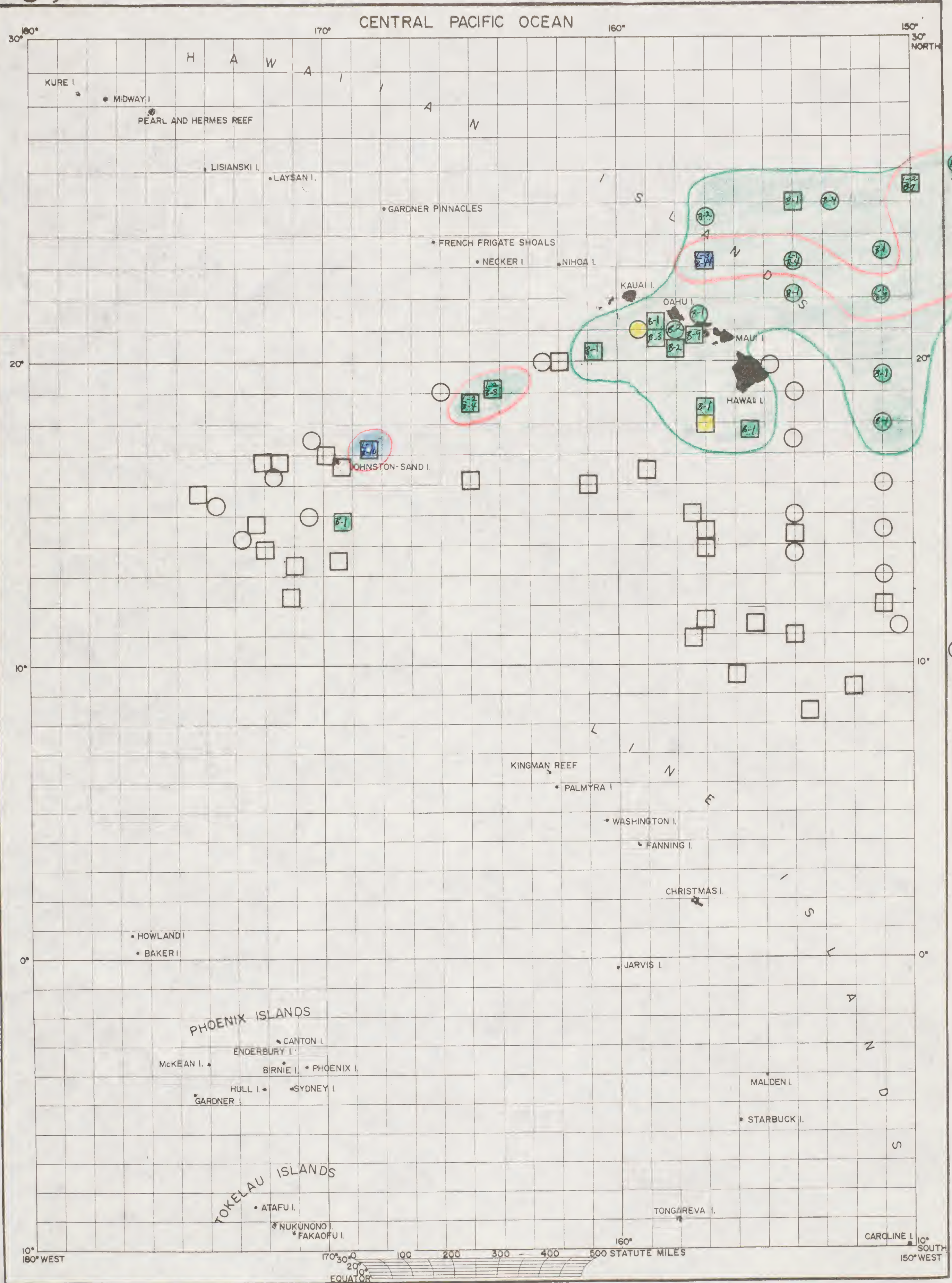
- = 1-15 April
- = 16-31 April
- = 0 birds
- ④ = 1-10 "
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 50-100 "
- (with diagonal lines) = 101-500 "
- (solid black) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

APRIL

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



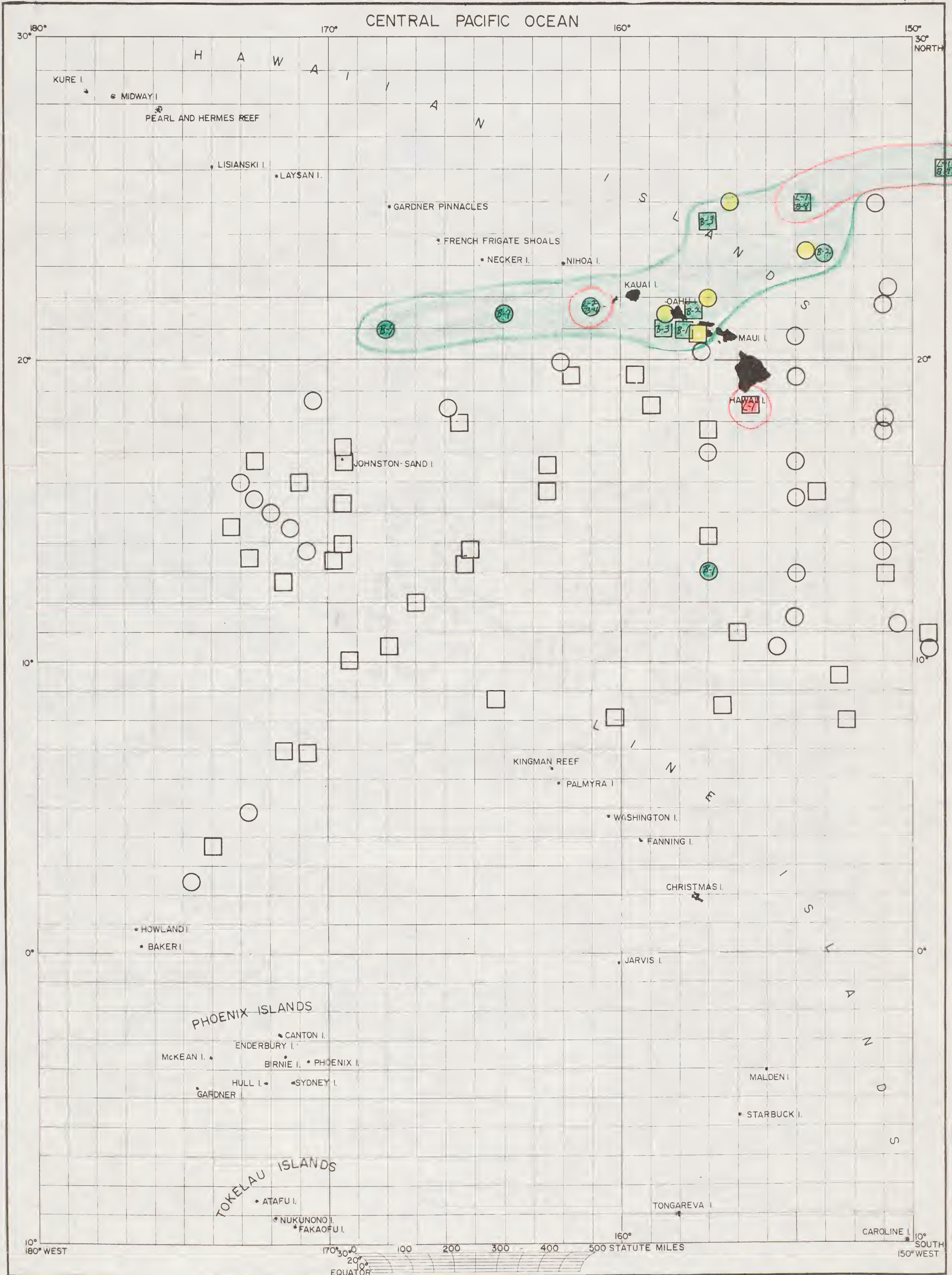
- 1-15 May
- = 16-31 May
- = 0 birds
- ④ = 1-10 "
- = 11-25 "
- = 26-50 "
- = 51-100 "
- = 101-500 "
- = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

MAY

SI-MNH-38 (8-65)



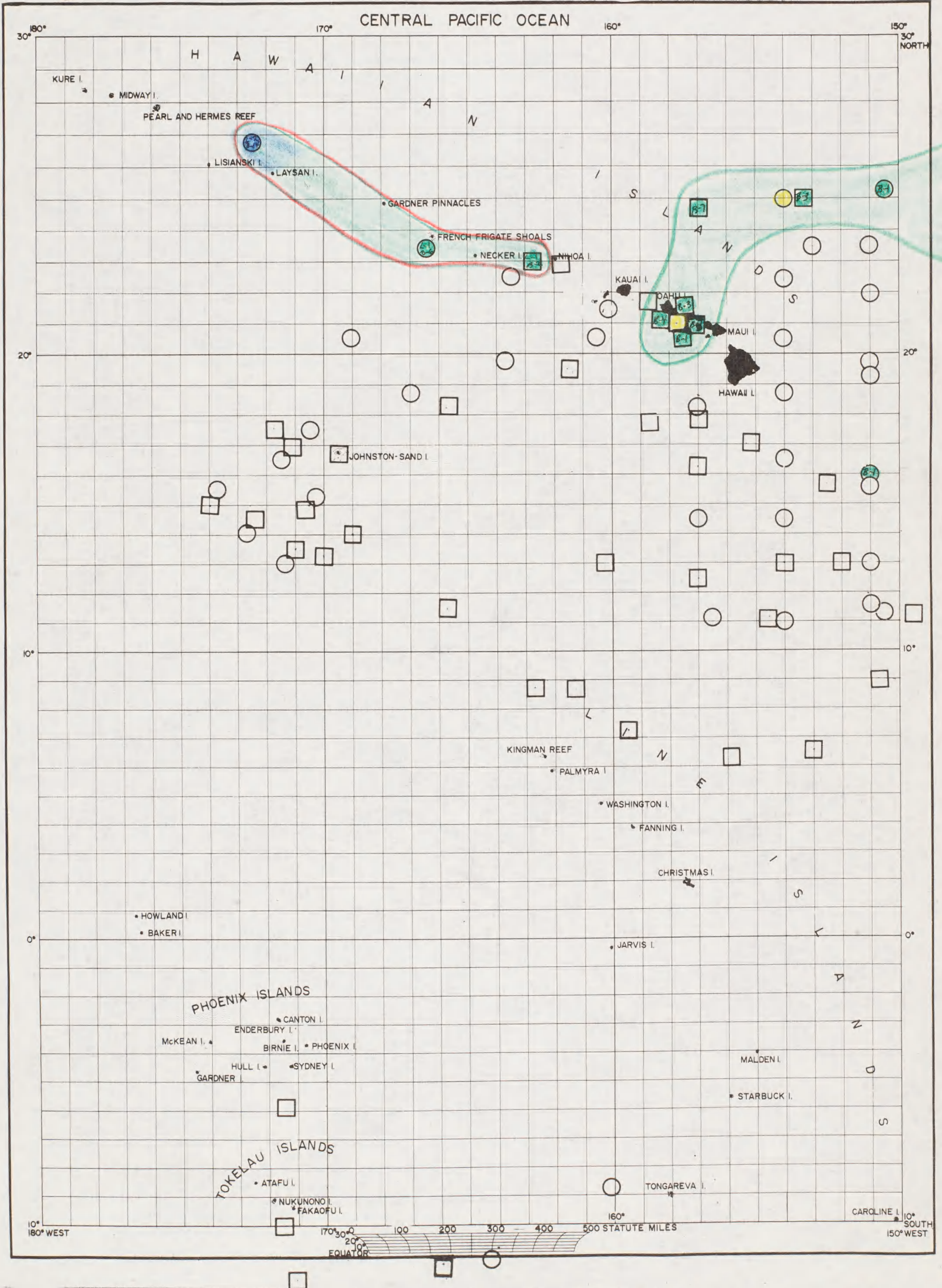
- 1-15 June
- = 16-31 June
- = 0 birds
- = 1-10 "
- = 11-25 "
- = 26-50 "
- = 51-100 "
- = 101-500 "
- = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

JUNE

SI-MNH-38 (8-65)



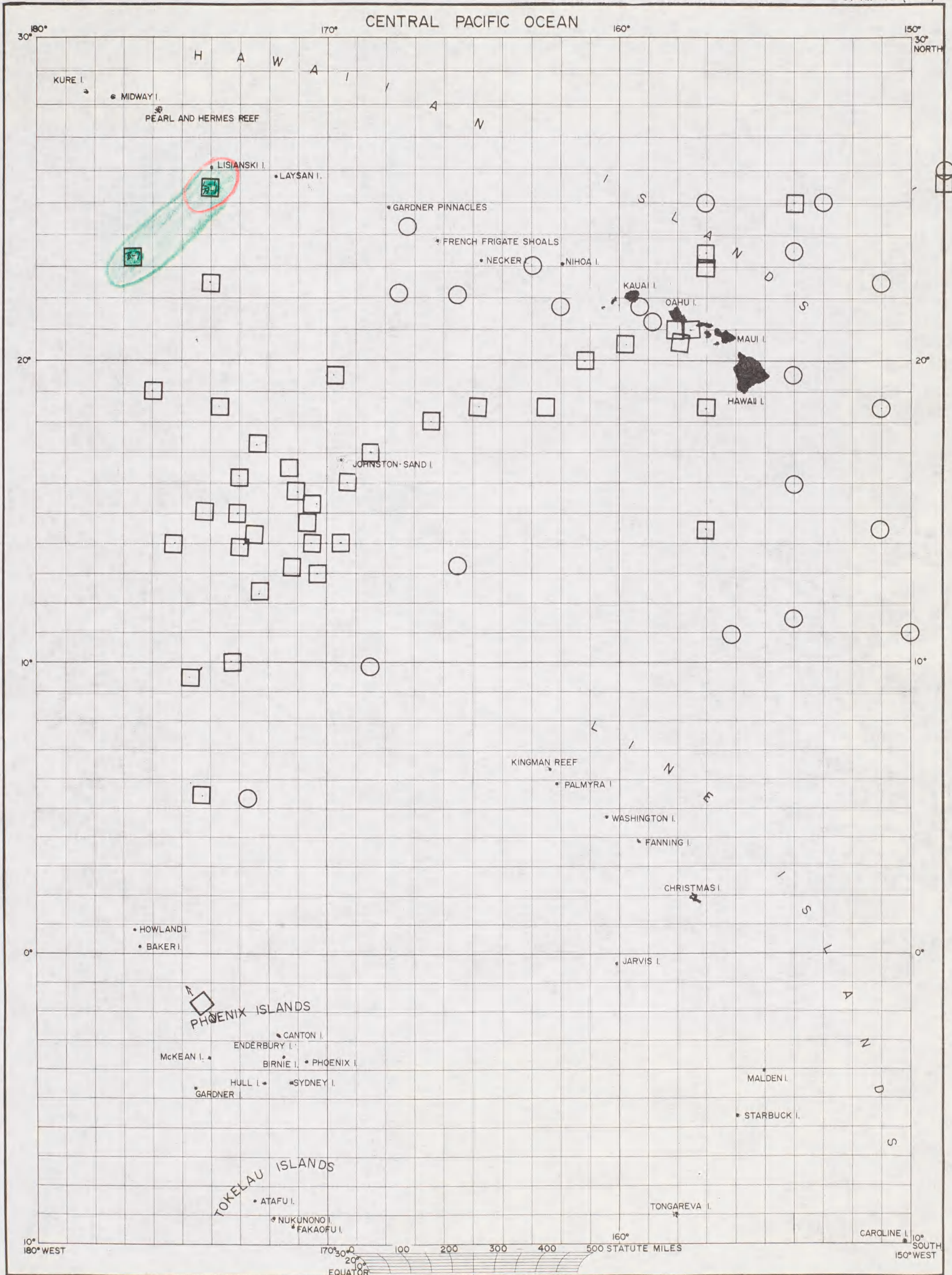
- ☐ 1-15 July
- = 16-31 July
- = 0 birds
- ④ = 1-10 birds
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- (with diagonal lines) = 101-500 "
- (solid black) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

JULY

SI-MNP-38 (8-65)



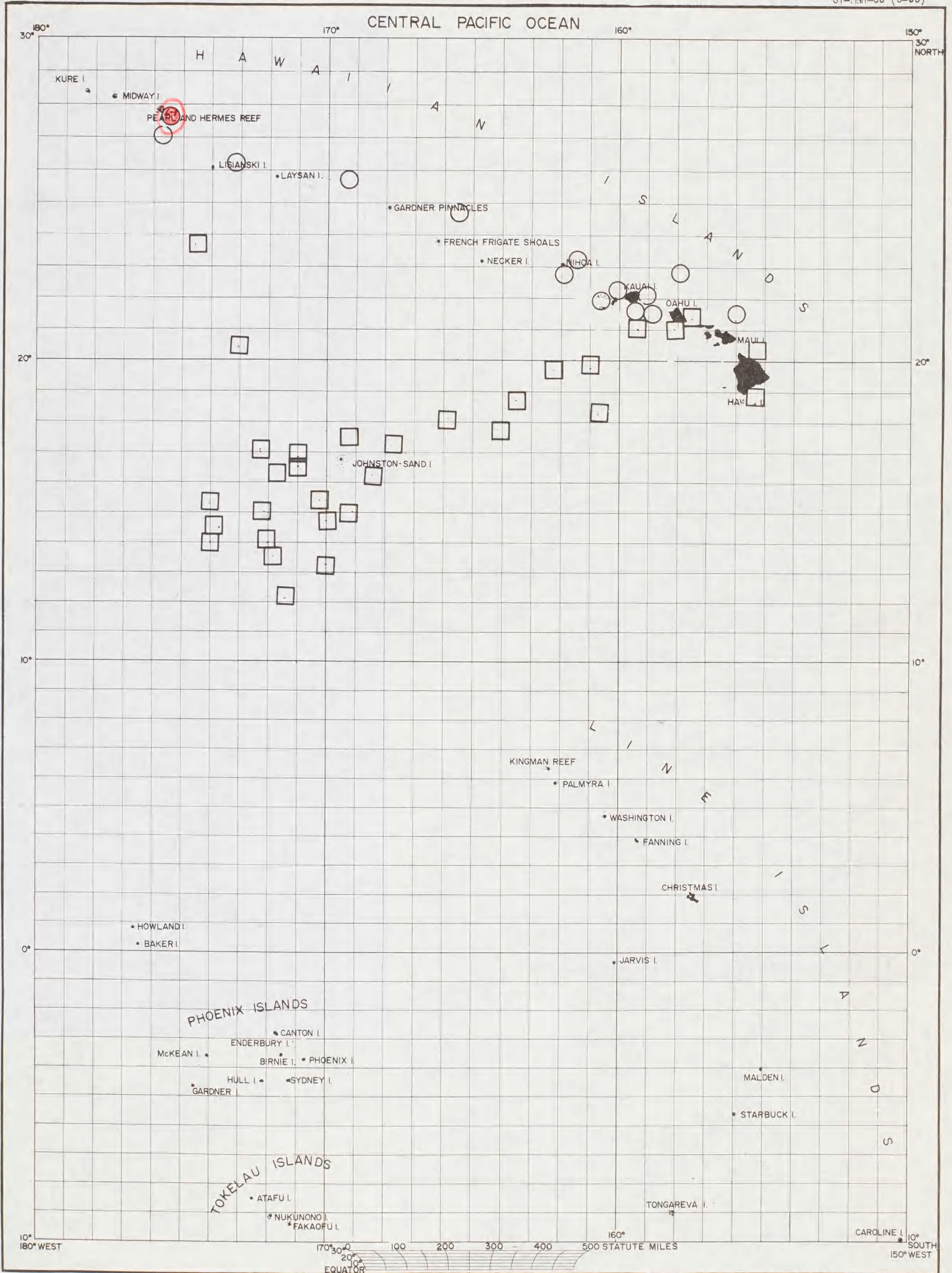
- 1-15 August
- = 16-31 August
- = 0 birds
- ④ = 1-10 "
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- (with diagonal lines) = 101-500 "
- (solid black) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

AUGUST

SI-MNH-38 (8-65)



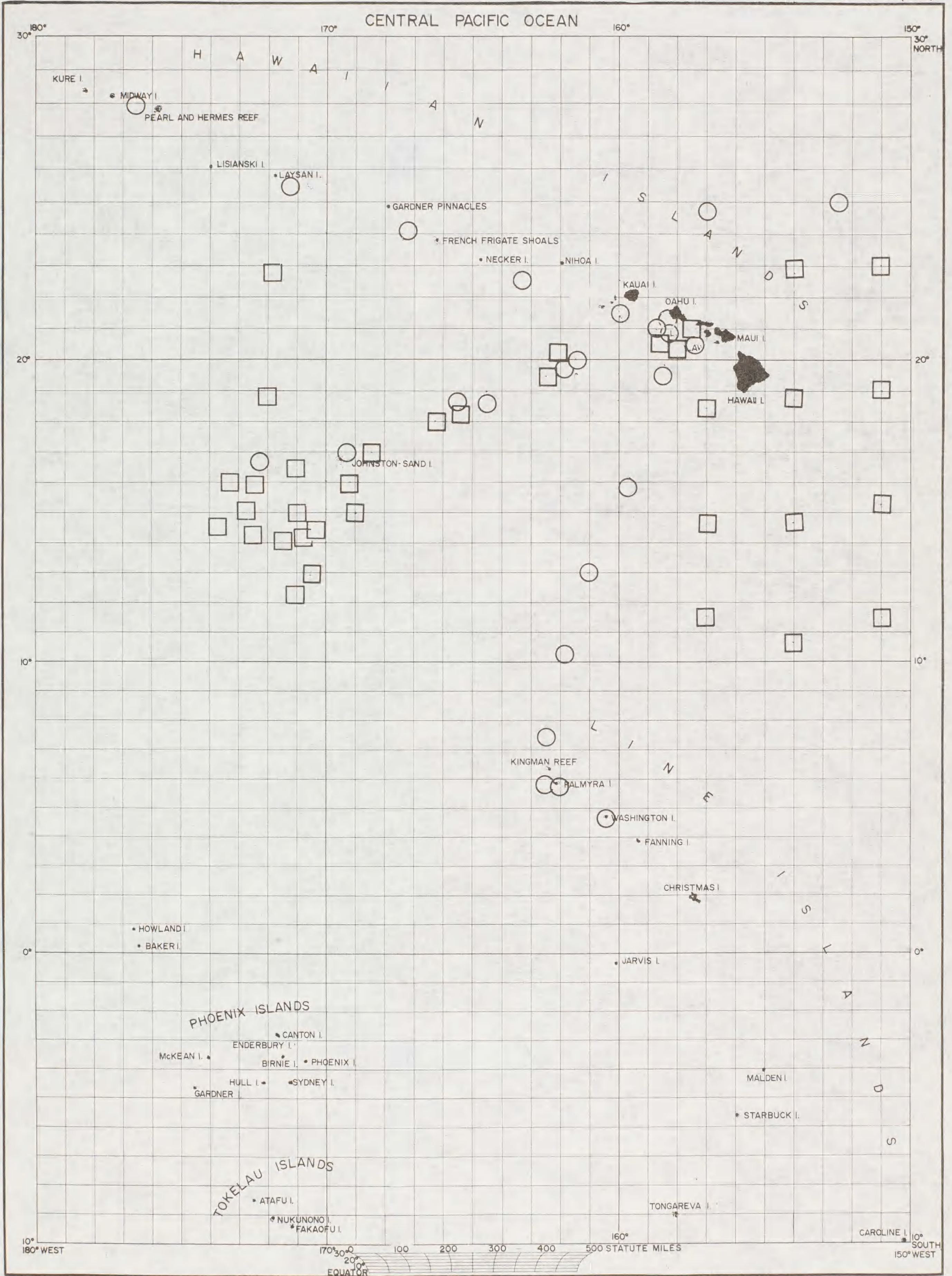
- 1-15 September
- = 16-31 September
- = 0 birds
- ④ = 1-10 "
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- (with diagonal lines) = 101-500 "
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BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

SEPTEMBER

SI-MNH-38 (8-65)



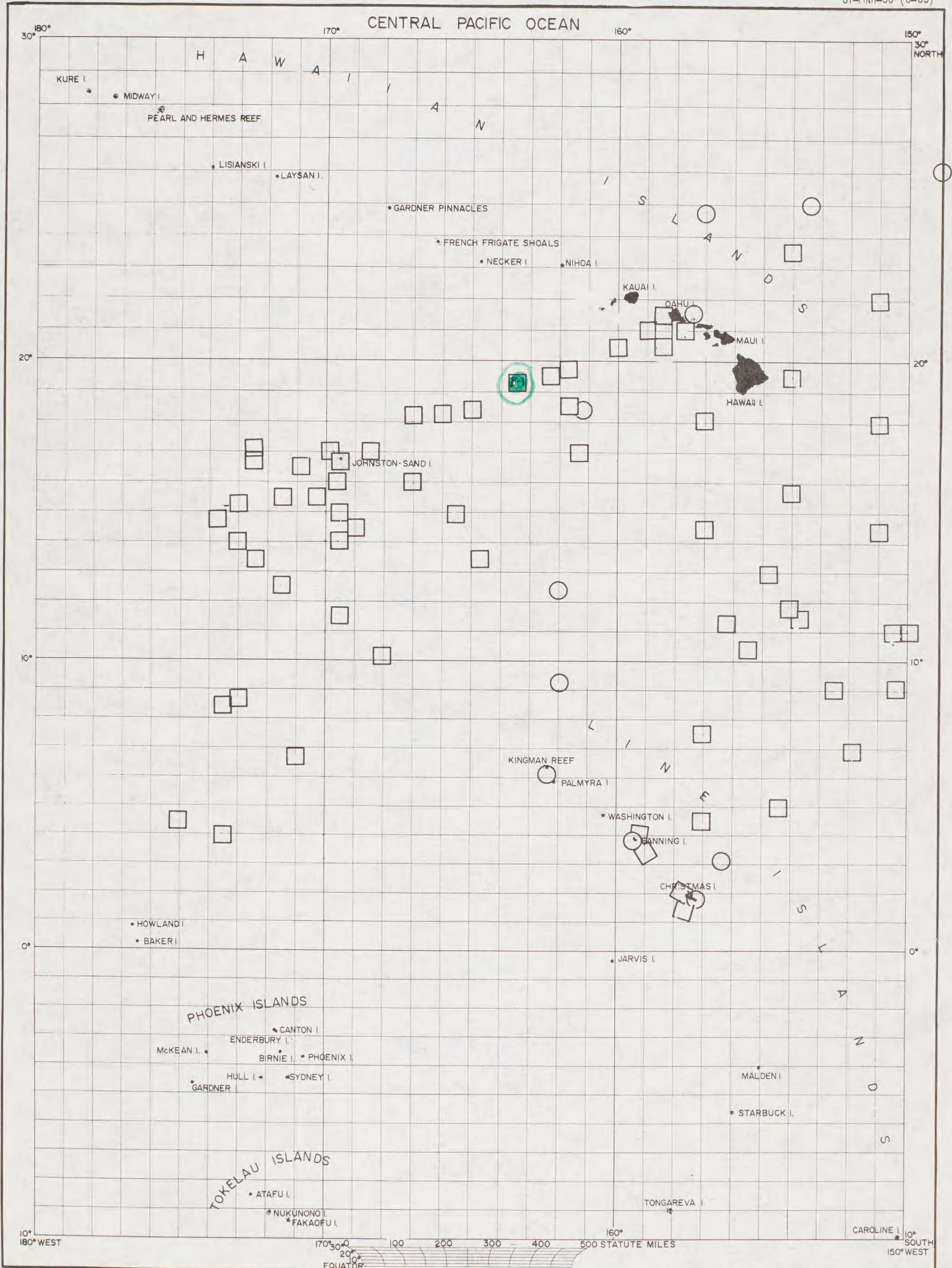
- 1-15 October
- = 16-31 October
- = 0 birds
- ④ = 1-10 XXX
- ⊖ = 11-25 XXX
- ⊕ = 26-50 XXX
- ⊗ = 51-100 XXX
- = 101-500 XXX
- ⦿ = 500+ XXX

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

OCTOBER

SI-MNH-38 (8-65)





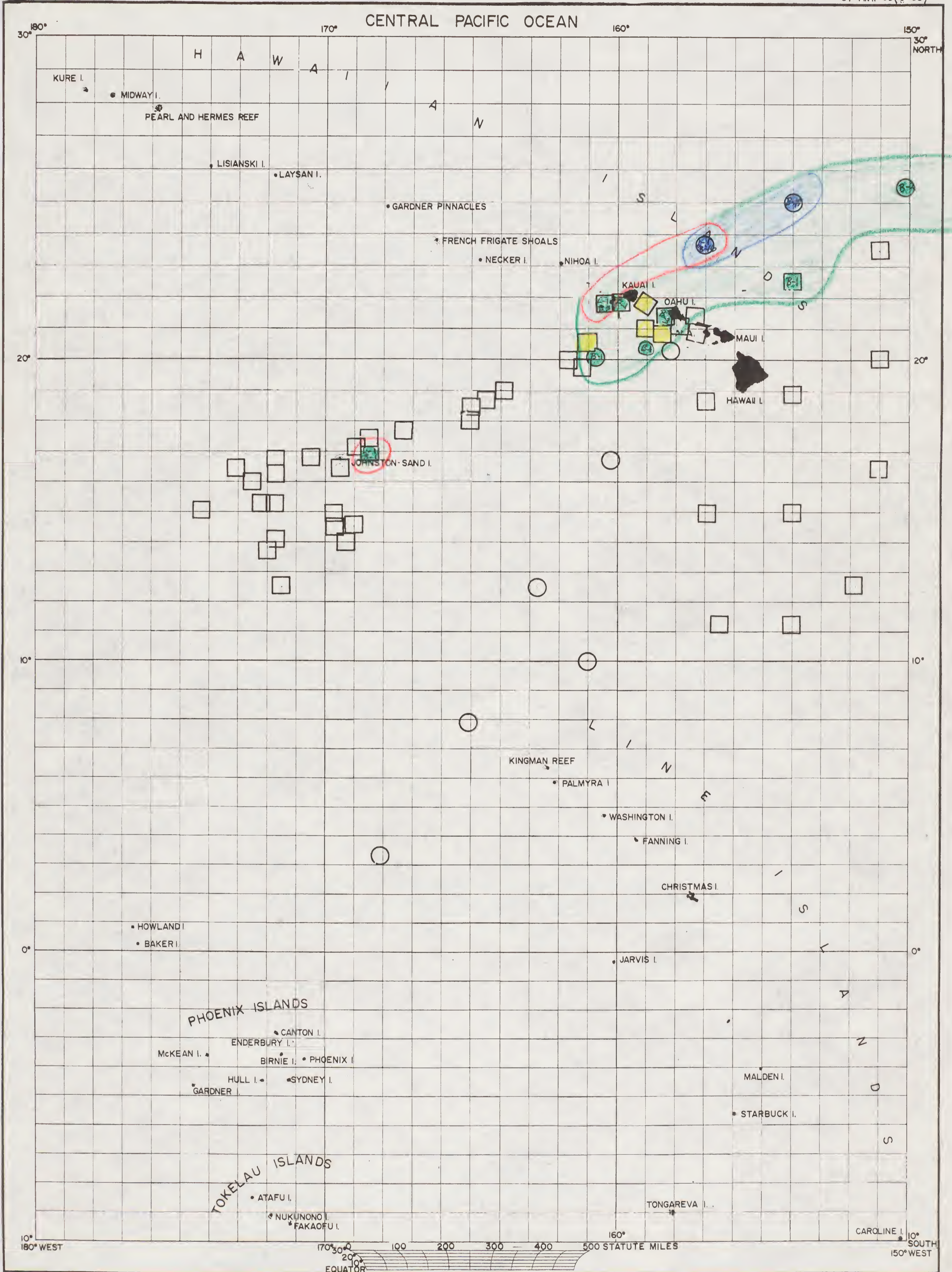
- 1-15 November
- = 16-31 November
- = 0 birds
- ⊕ = 1-10 " (with 10 'x' marks)
- ⊕ = 11-25 " (with 25 'x' marks)
- ⊕ = 26-50 " (with 50 'x' marks)
- ⊕ = 51-100 " (with 100 'x' marks)
- = 101-500 " (with 500 'x' marks)
- = 500+ " (with 500+ 'x' marks)

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

NOVEMBER

SI-MNH-38(8-55)





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LAYSAN ALBATROSS (Diomedea immutabilis)

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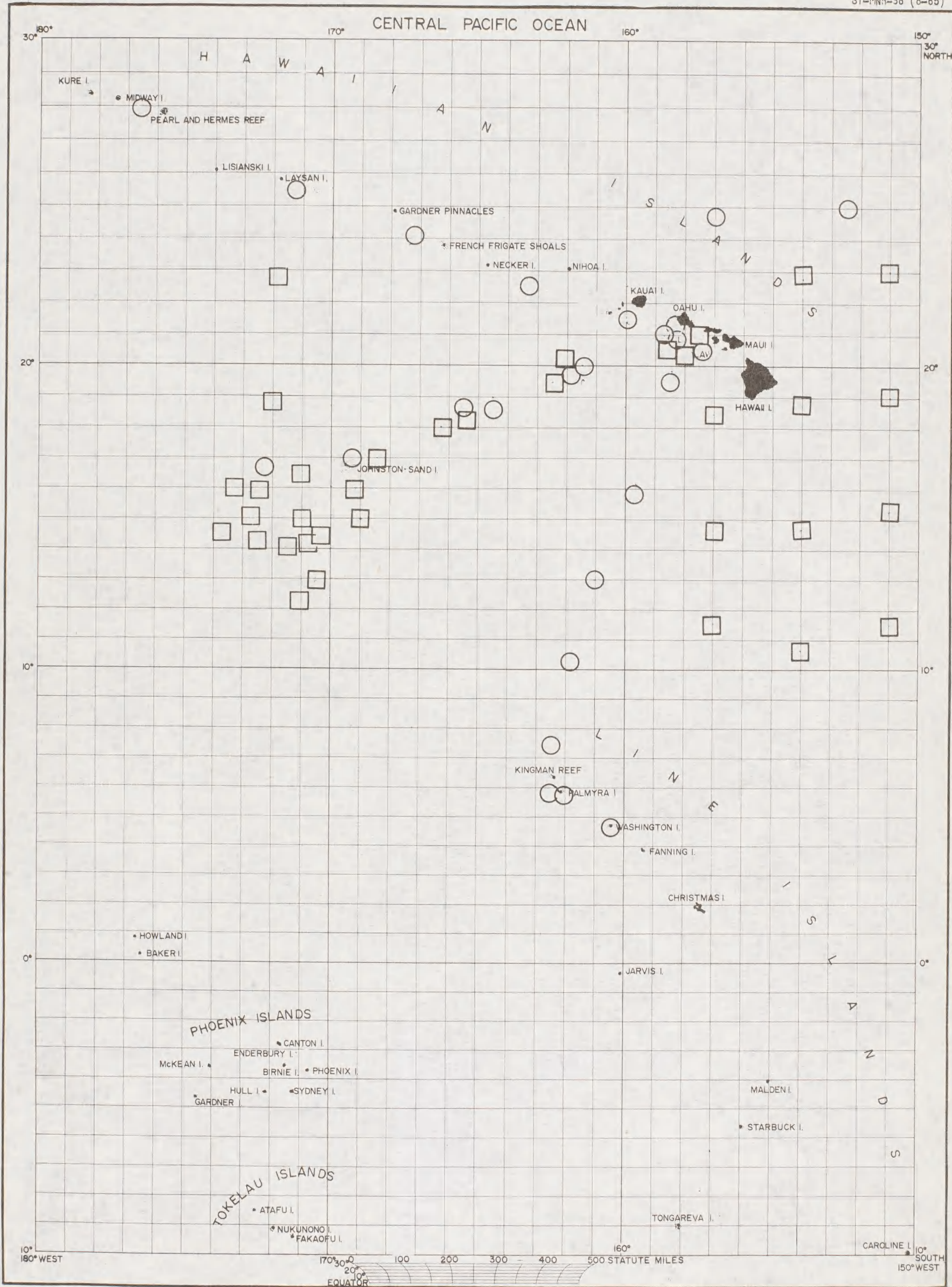
- 1-15 September
- = 16-31 September
- = 0 birds
- ④ = 1-10 "
- ⊖ = 11-25 "
- ⊕ = 26-50 "
- ⊗ = 51-100 "
- = 101-500 "
- ⦿ = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

SEPTEMBER

SI-MNH-38 (8-65)



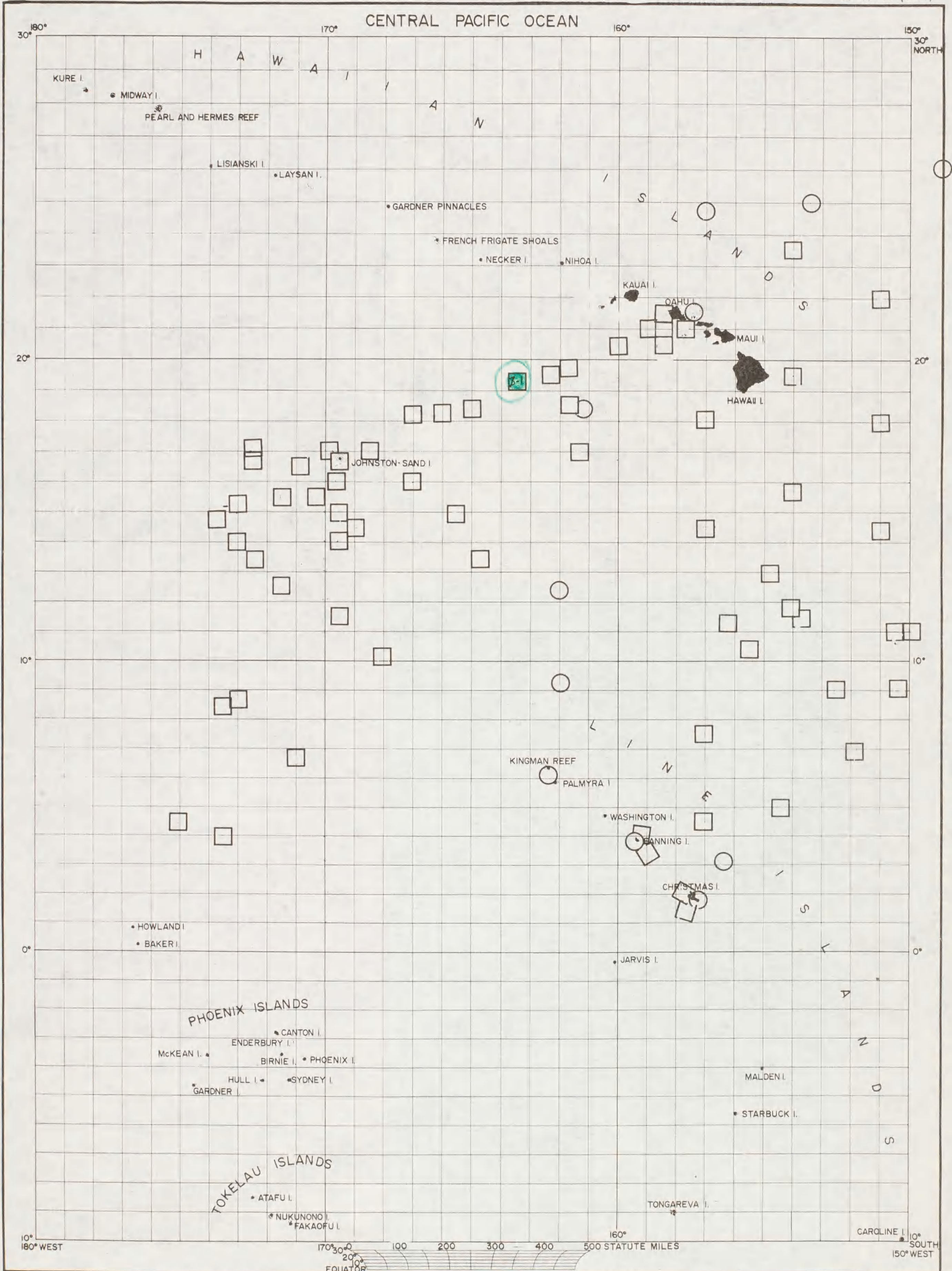
- 1-15 October
- = 16-31 October
- ⊗ = 0 birds
- ④ = 1-10 birds
- ⊖ = 11-25 birds
- ⊕ = 26-50 birds
- ⊗ = 51-100 birds
- ⊙ = 101-500 birds
- ⊛ = 500+ birds

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

OCTOBER

SI-MNH-38 (8-65)



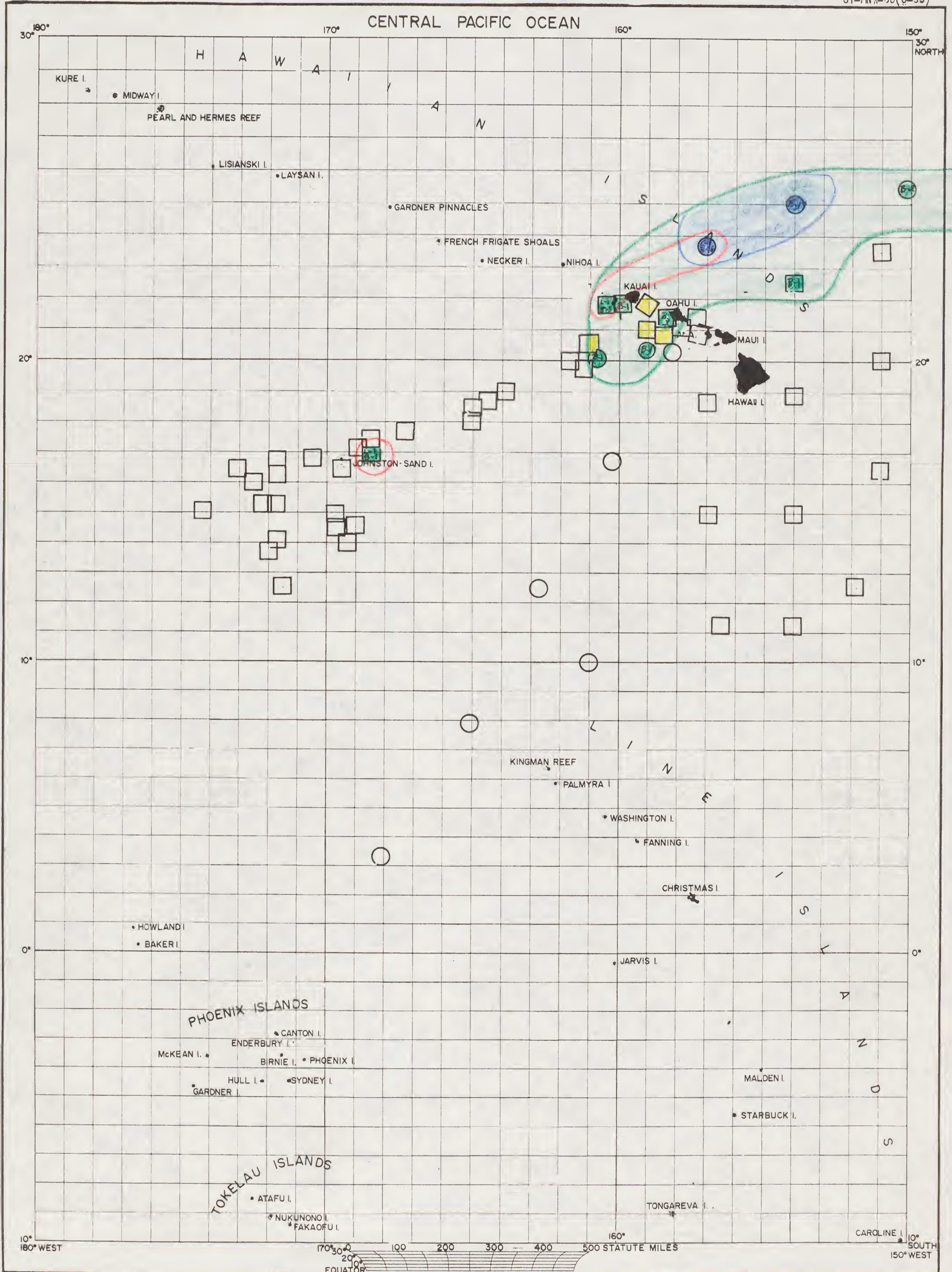
- 1-15 November
- = 16-31 November
- = 0 birds
- ⊗ = 1-10
- ⊗ = 11-25
- ⊗ = 26-50
- ⊗ = 51-100
- ⊗ = 101-500
- ⊗ = 500+

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

NOVEMBER

SI-MNH-38(8-55)



□ 1-15 December

○ = 16-31 December

⊗ = 0-1000

⊗ = 100-10000

⊗ = 10000-25000

⊗ = 25000-50000

⊗ = 50000-100000

● = 1000-5000

● = 5000+

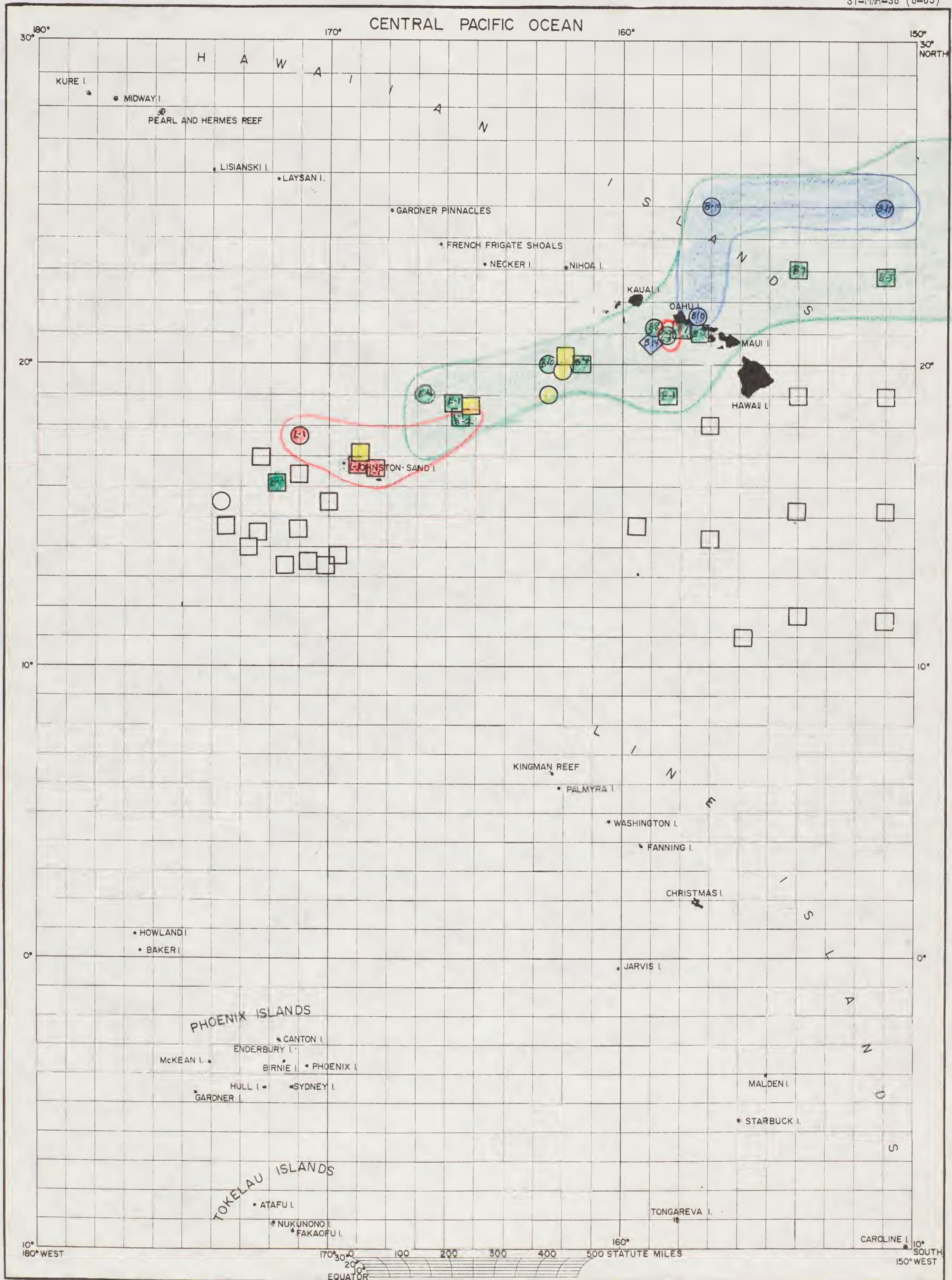
BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)

LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

DECEMBER

SI-MNH-38 (8-65)



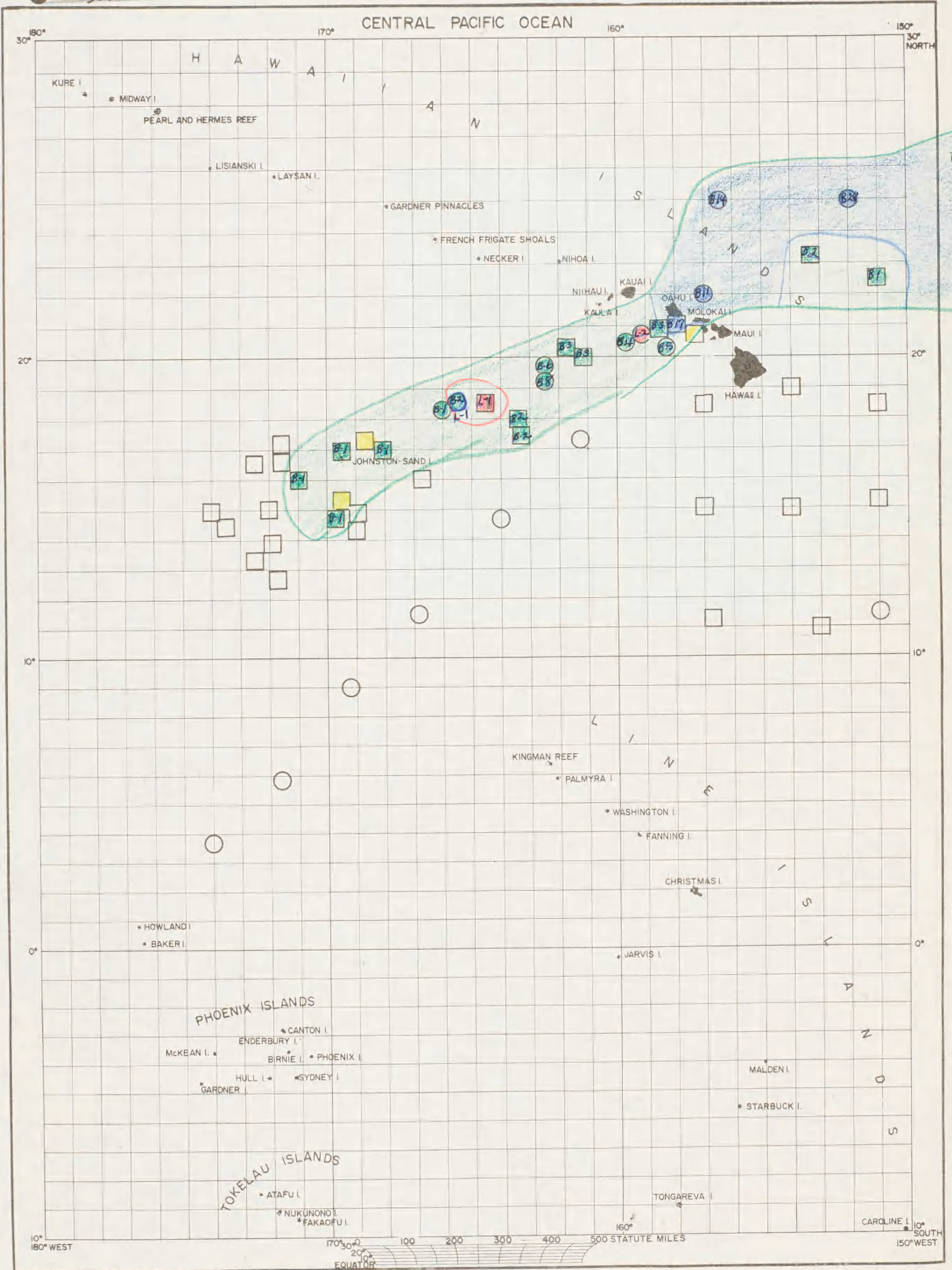
- = 1-15 January
- = 16-31 January
- = 0 birds
- ④ = 1-10 "
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- (with diagonal lines) = 101-500 "
- (solid) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

JANUARY

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





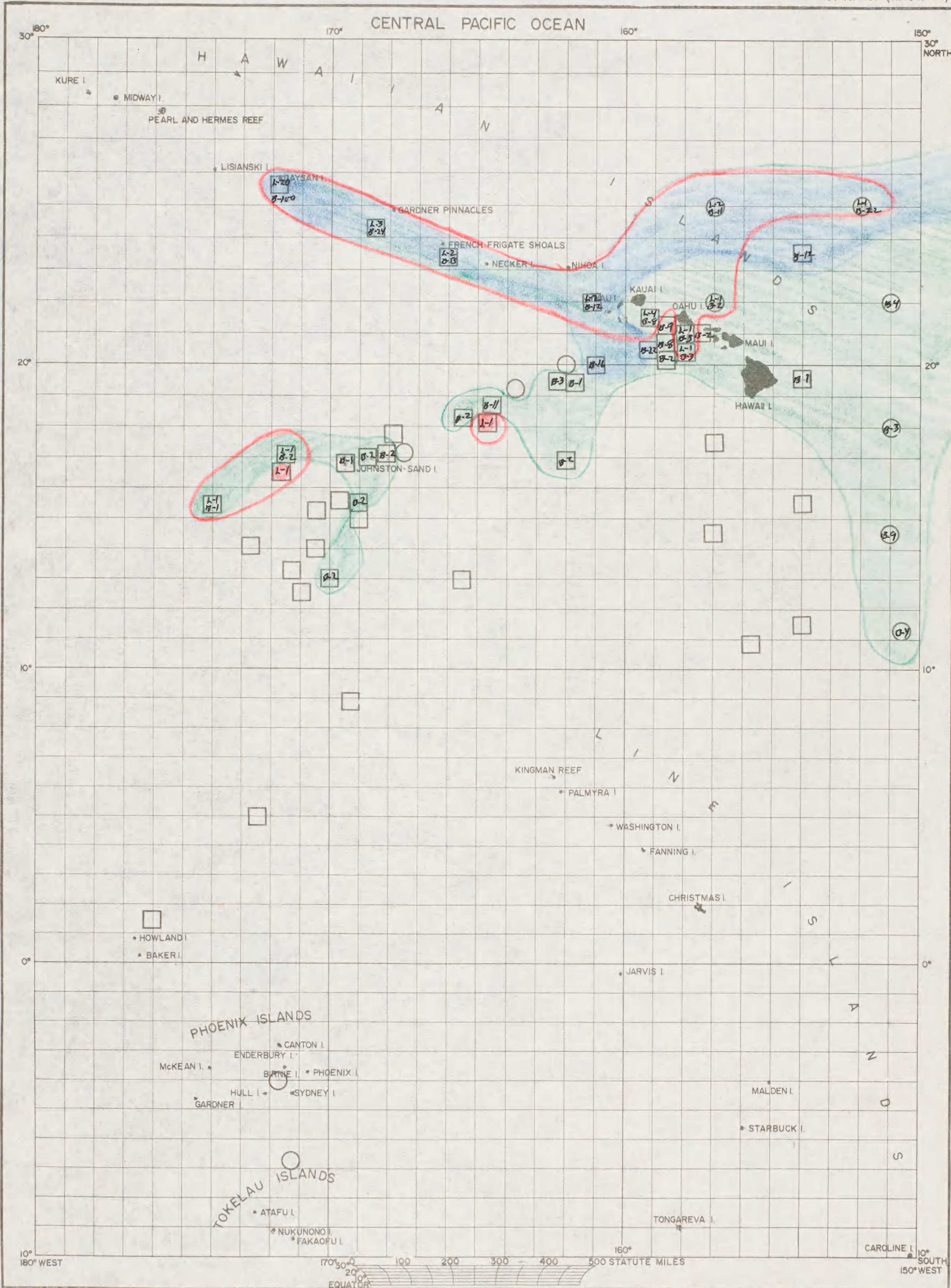
- = 1-15 February
- = 16-31 February
- ④ = 0 birds
- = 1-10 "
- = 11-25 "
- = 26-50 "
- = 51-100 "
- = 101-500 "
- = 500+ "

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 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

FEBRUARY

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



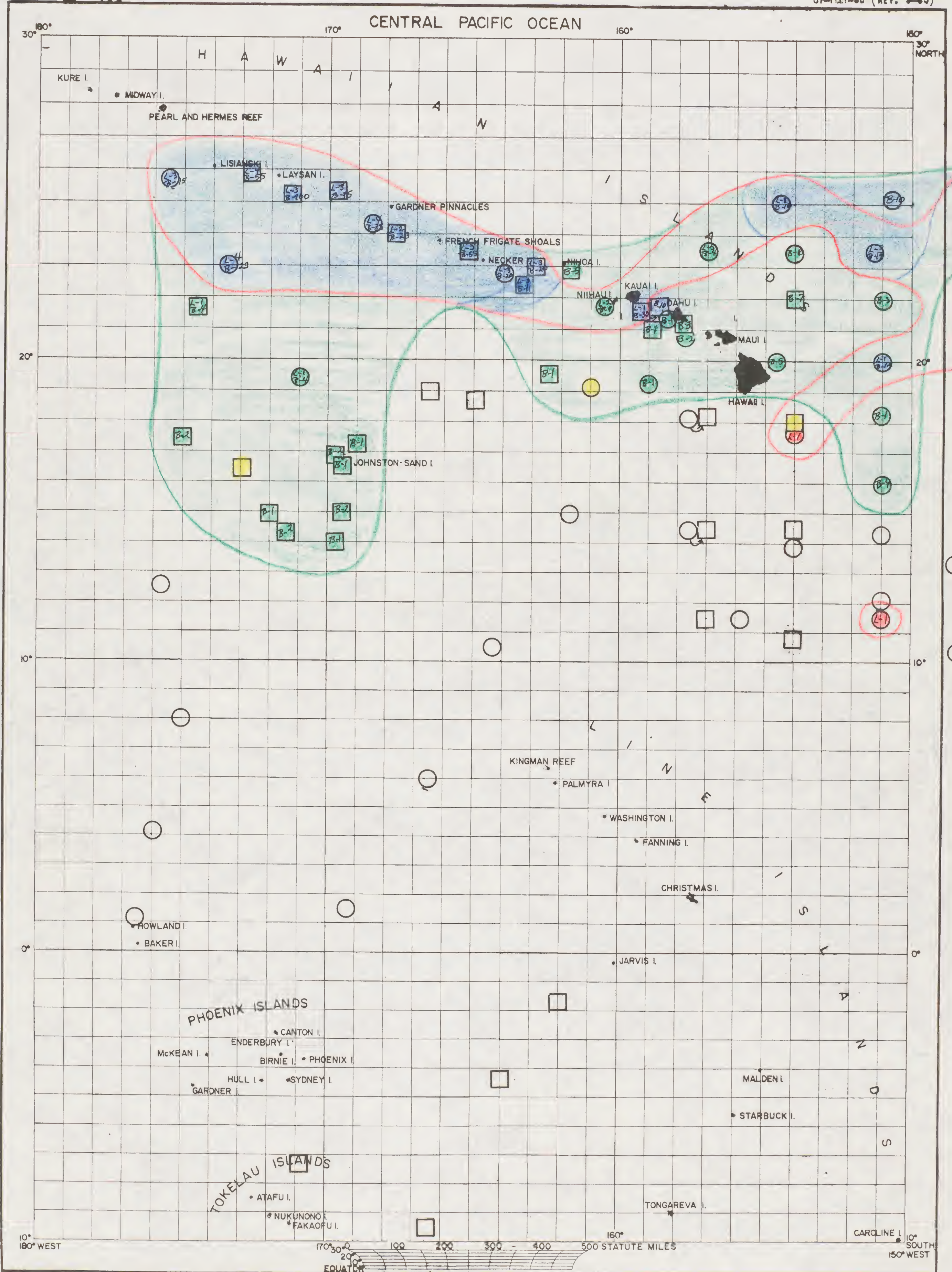
- ☐ = 1-15 March
- = 16-31 March
- ④ = 0 birds
- (with 1-10) = 1-10 "
- (with 11-25) = 11-25 "
- (with 26-50) = 26-50 "
- (with 51-100) = 51-100 "
- (with 101-500) = 101-500 "
- (with 500+) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

MARCH

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



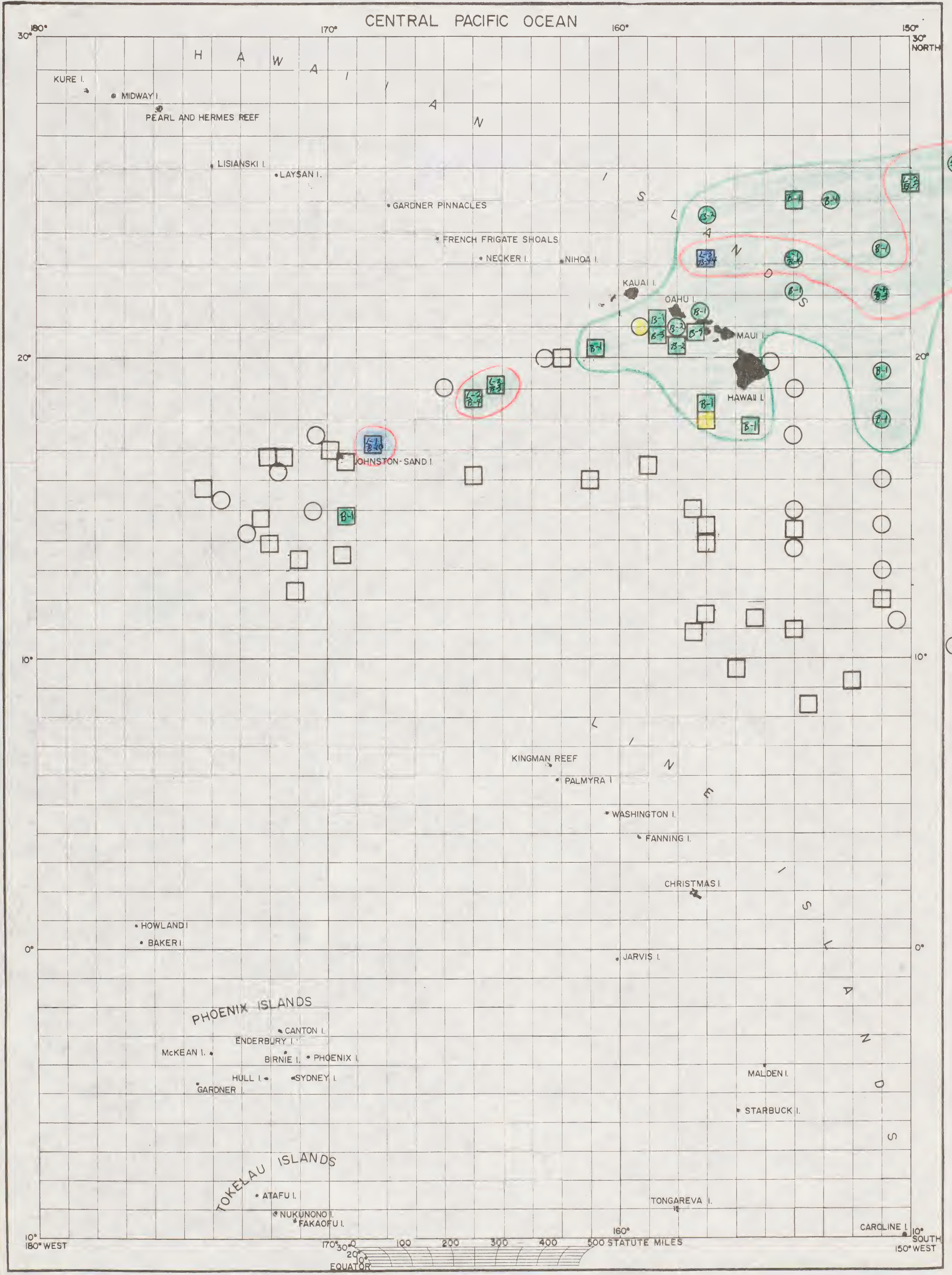
- = 1-15 April
- = 16-31 April
- = 0 birds
- ④ = 1-10 "
- (with 1-25) = 11-25 "
- (with 26-50) = 26-50 "
- (with 50-100) = 50-100 "
- (with 101-500) = 101-500 "
- (with 500+) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

APRIL

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



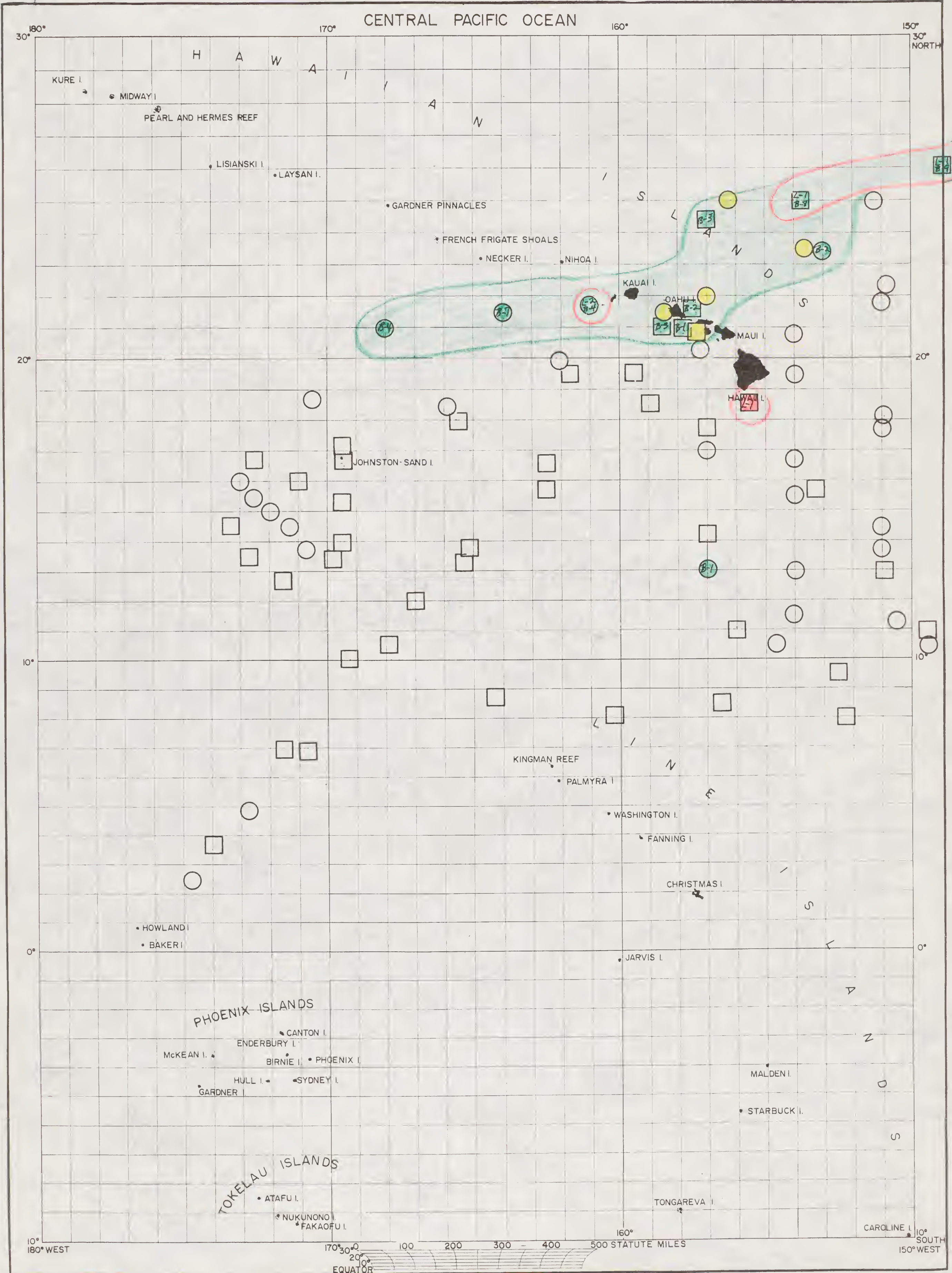
- 1-15 May
- = 16-31 May
- = 0 birds
- ④ = 1-10 "
- = 11-25 "
- = 26-50 "
- = 51-100 "
- = 101-500 "
- = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

MAY

SI-MNH-38 (8-65)



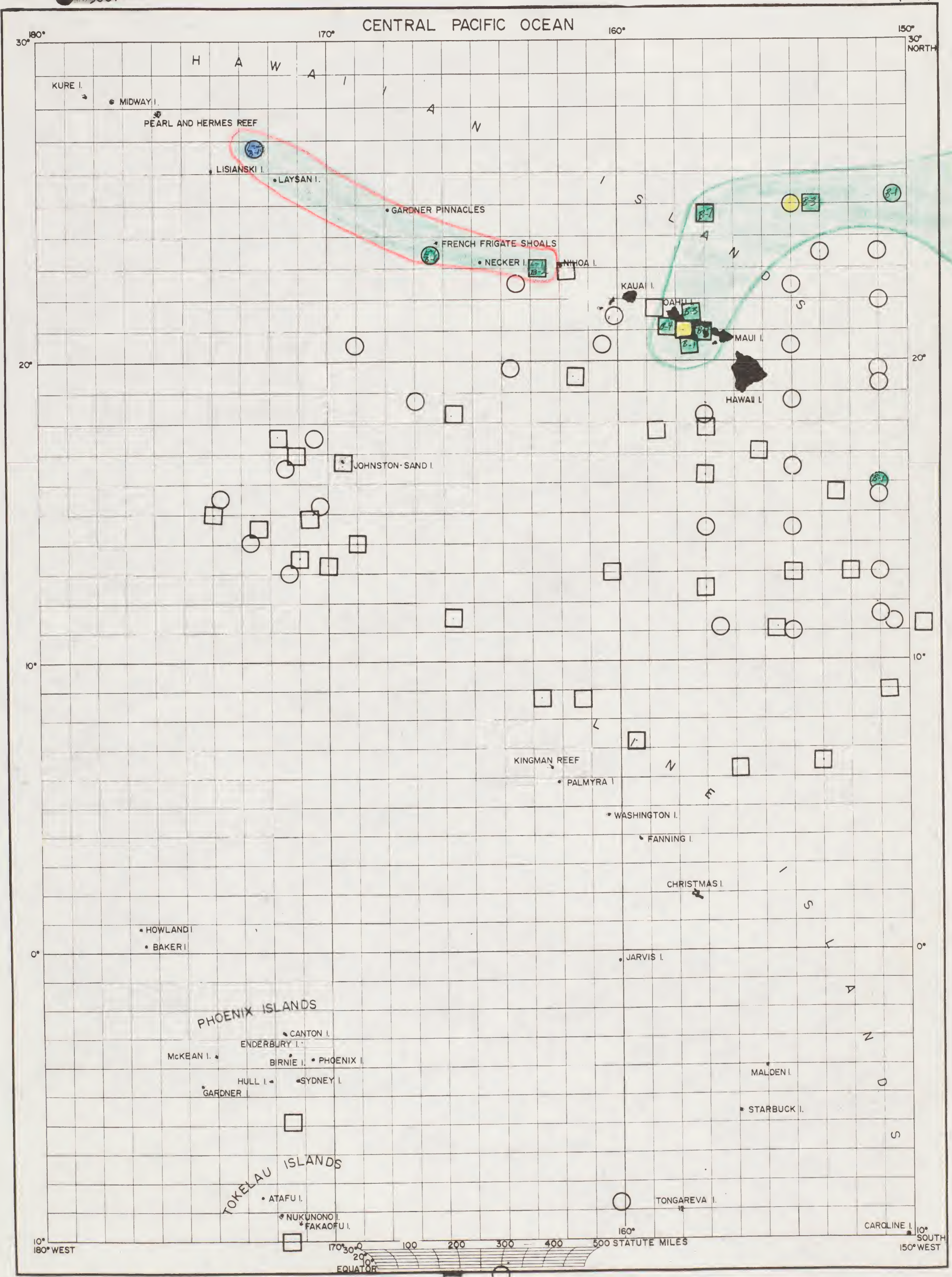
- 1-15 June
- = 16-31 June
- = 0 birds
- = 1-10 "
- = 11-25 "
- = 26-50 "
- = 51-100 "
- = 101-500 "
- = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

JUNE

SI-MNH-38 (8-65)



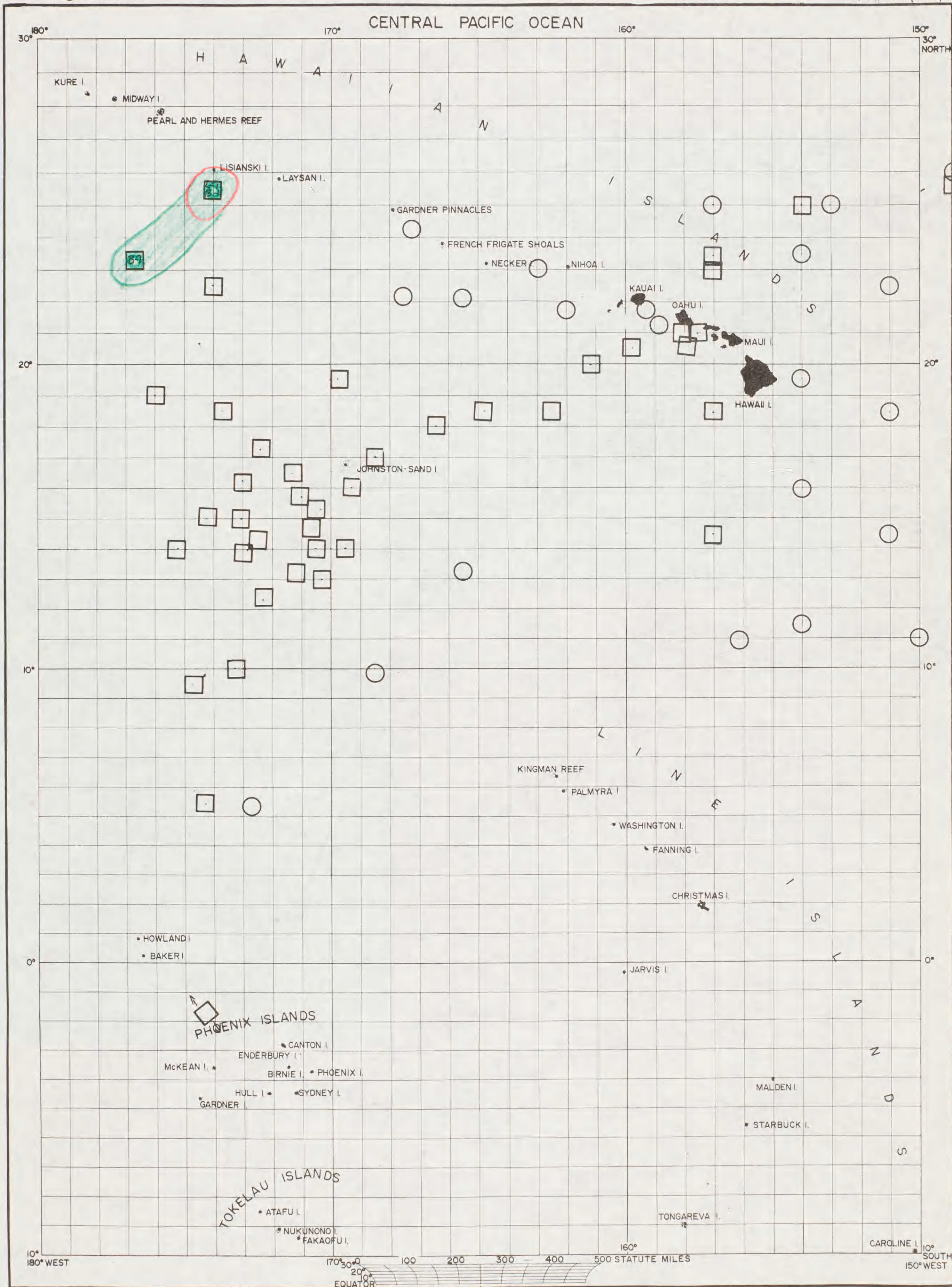
- ☐ 1-15 July
- = 16-31 July
- = 0 birds
- ④ = 1-10 birds
- (with horizontal lines) = 11-25 "
- (with vertical lines) = 26-50 "
- (with diagonal lines) = 51-100 "
- (with diagonal lines) = 101-500 "
- (solid black) = 500+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

JULY

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+ "

BLACK-FOOTED ALBATROSS (*Diomedea nigripes*)  
 LAYSAN ALBATROSS (*Diomedea immutabilis*)

At-Sea Distribution and Abundance

AUGUST

SI-MNH-38 (8-65)

