Seleucid Infantry:Cavalry Ratios:

The Importance of Numerical Evidence for Understanding Seleucid Warfare

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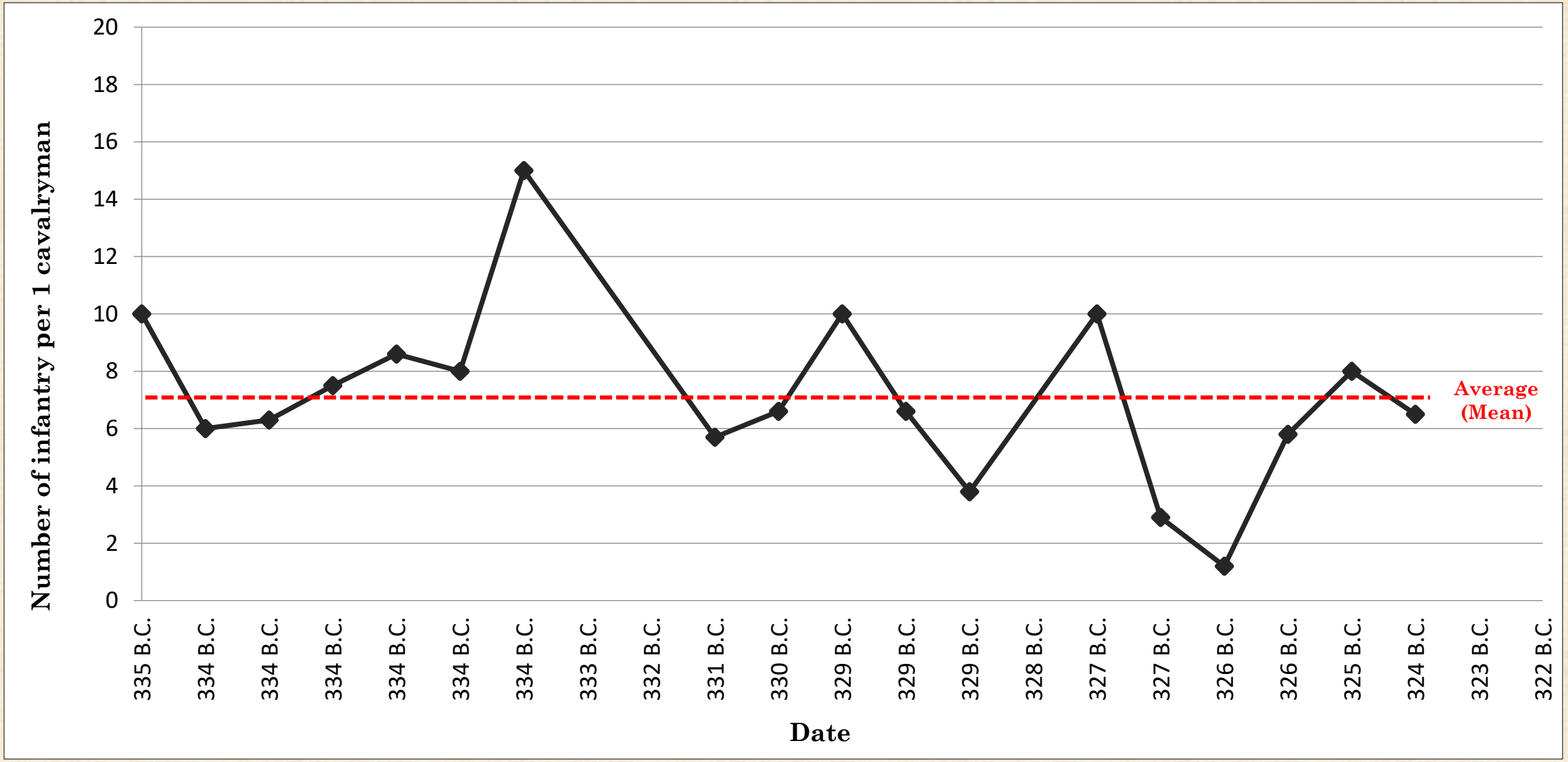
‘After the death of Alexander, **the cavalry gradually lost its importance** as a tactical arm.’

– Ducrey (1986) 103

‘**Infantry** remained the ‘**queen of battle**’ in this period’

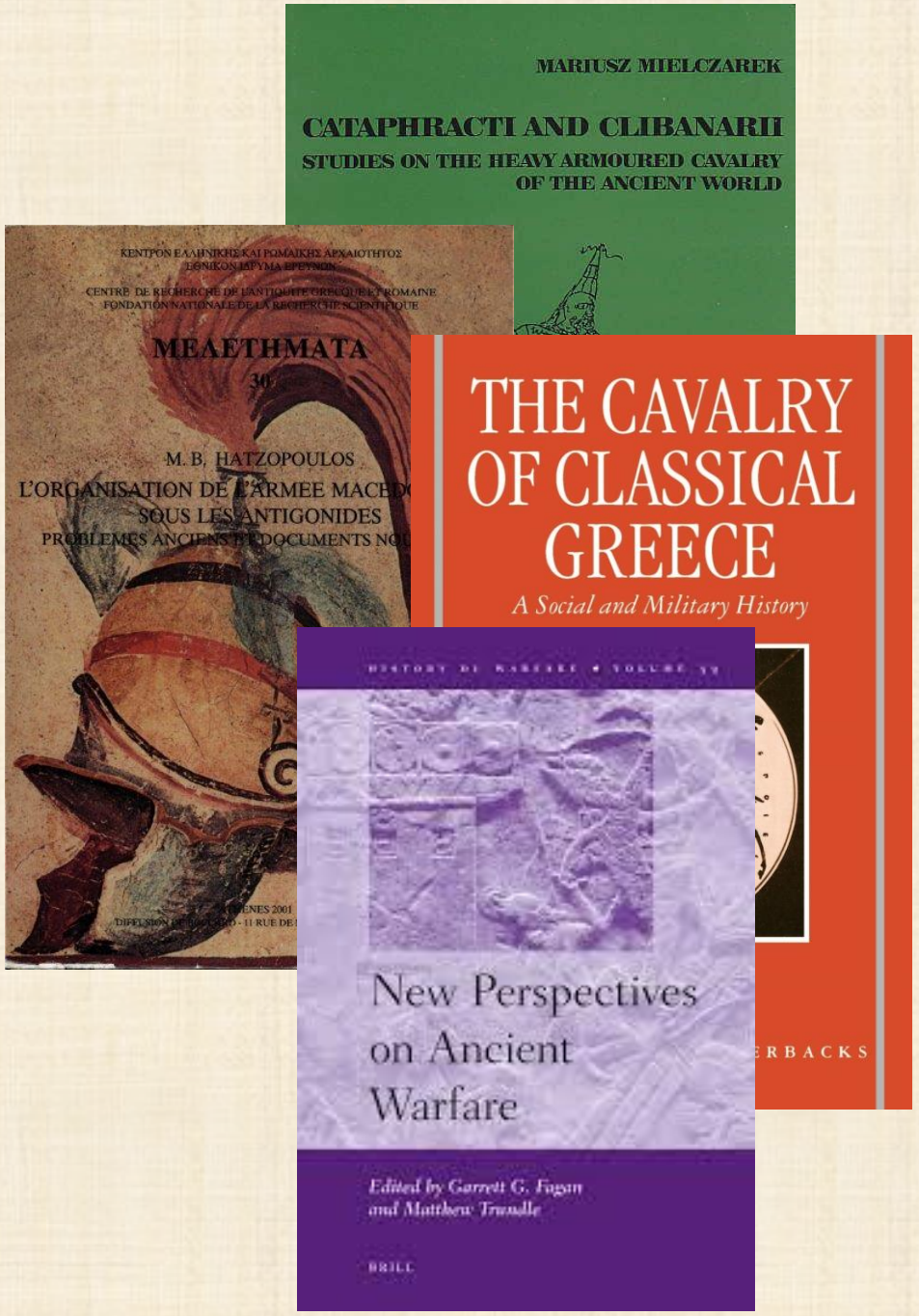
– Sabin (2007) 425

Alexander the Great's Infantry:Cavalry Ratios

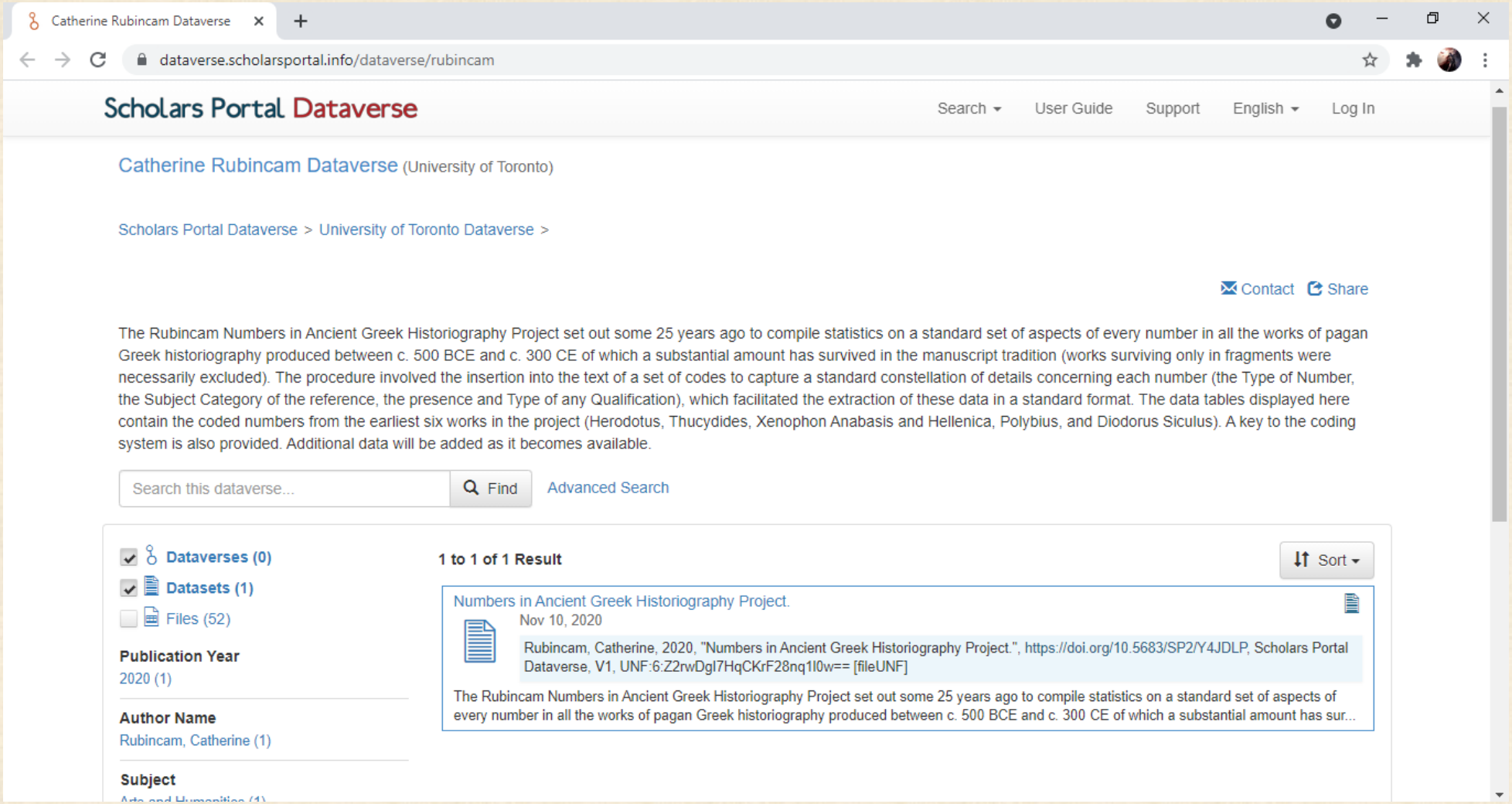


Previous Scholarship

- Mielczarek, M. (1993) *Cataphracti and Clibanarii*
  - Devotes four sentences to Seleucid ratios
- Hatzopoulos, M.B. (2001) *L'organisation de l'armée macédonienne sous les antigonides*
  - Two paragraphs on the development of cavalry proportions under Alexander and Hellenistic rulers
- Spence, I.G. (1993) *The Cavalry of Classical Greece*
  - Two-page table of Classical Athenian ratios
- Tuplin, C. (2010) 'All the Kings Horses: In Search of Achaemenid Persian Cavalry', in Fagan and Trundle (eds.)
  - Discusses Achaemenid ratios in detail, but generalises about Classical Greek ratios



The Rubincam Numbers in Greek Historiography Project



Rubincam (2020): https://dataverse.scholarsportal.info/dataverse/rubincam

Complexities of Ancient Numbers

- Numbers in battle narratives are frequently only rounded estimates.
  - Cf. Rzepka (2017) 171; Rubincam (1991) 184, (2003) 458.

- A tendency to underestimate their own forces, whilst overestimating their opponents.

- Rhetorical strategies – the conventions of genre.

- The difference between modern attitudes towards numbers, and modern ability to quantify things with a high degree of accuracy, and the limitations of this in the ancient world.
  - Rubincam (2003) 462, (2008) 97.

- 'The reliability of a single figure cannot be determined without putting it into its context' – Rubincam (2003) 449.

Complexities of Ancient Numbers

- Many battles where we have no numbers (or only numbers for one type of troop).

- The cavalry are often identified as a collective.
  - E.g. at Raphia, **Polybius (5.79)** describes Antiochus III's forces:

Infantry	5,000 Daae, Carmani, Cilicians; 10,000 *Argyraspides*; 20,000 phalanx; 2,000 Agrianes and Persians; 1,000 Thracians; 5,000 Medes, Cissians, Cadusians, Carmanians; 10,000 Arabians and men from neighbouring tribes; 5,000 Greek mercenaries; 1,500 Cretans, 1,000 Neo-Cretans; 500 Lydian javelin-men; 1,000 Cardaces
Cavalry	**'The entire number of his horse was 6,000'** (τῶν δ' ἱππέων ἦν τὸ πᾶν πλῆθος εἰς ἑξακισχιλίους)

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Battle	*Infantry*	*Cavalry*	*Ratio*	*Source(s)*
Ipsus (301 B.C.)	64,000	10,500 (15,000?)	**6.1:1 (4.3:1?)**	Plutarch, *Demetrius* 28.3 (Cf. Bar-Kochva (1976) 107)
Selge (218 B.C.)	6,000	500	**12:1**	Polybius, 5.72.3
Raphia (217 B.C.)	62,000	6,000	**10.3:1**	Polybius, 5.79.13
Antiochus III's eastern expedition (*Ca.* 212-206 B.C.)	100,000	20,000	**5:1**	Justin, 41.5.7
Thermopylae (191 B.C.)	10,000	500	**20:1**	Livy, 36.15.3; Appian, *Syriaca* 17
Pergamum (190 B.C.)	4,000	600	**6.6:1**	Livy, 37.20.7
Magnesia (190 B.C.)	60,000 (60,900?)	12,000+ (12,200?)	***Ca.* 5:1 (4.9:1?)**	Livy. 37.37.9, 37.40
Night attack prior to Emmaus (165 B.C.)	5,000	1,000	**5:1**	I *Maccabees*, 4.1
Emmaus (165 B.C.)	40,000	7,000	**5.7:1**	I *Maccabees*, 3.39
Beth-Zur (164 B.C.)	60,000	5,000	**12:1**	I *Maccabees*, 4.28
Beth-Zechariah (162 B.C.)	50,000	*Ca.* 5,000	***Ca.* 10:1**	Josephus, *Bellum Judaicum* 1.41
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Thermopylae (191 B.C.)

Infantry	*Cavalry*	*Ratio*
10,000	500	**20:1**

- Antiochus III's landing force at Pteleum
  - 'His total strength consisted of **10,000 infantry, 500 cavalry** and six elephants' (*decem milia peditum fuere et quingenti equites, sex elephanti*) – **Livy, 35.43.6**
- Antiochus' force at Thermopylae
  - '[Antiochus] himself had with him about **10,000 infantry**… and **500 cavalry**.' (*et ipse eo decem milia fere peditum ex iis… expleta et equites quingentos duxit*) – **Livy, 36.15.3** (see also: **Appian, *Syriaca* 17**)
- Aftermath of the battle
  - 'Antiochus [lost] about **10,000,** including prisoners. The king himself… fled precipitately with **500 horse** as far as Elateia' (Ἀντιόχου δέ, σὺν τοῖς ληφθεῖσιν, ἀμφὶ τοὺς μυρίους. αὐτὸς δ᾽ ὁ βασιλεὺς ἀπὸ… μετὰ πεντακοσίων ἱππέων ἐς Ἐλάτειαν… διέδραμεν) – **Appian, *Syriaca* 20** (see also: **Livy, 36.19.11**)

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Raphia (217 B.C.)

Infantry	*Cavalry*	*Ratio*
62,000	6,000	10.3:1

- Antiochus III vs. Ptolemy IV
  - Antiochus: **62,000 infantry, 6,000 cavalry = 10.3:1**
  - Ptolemy: 70,000 infantry, 5,000 cavalry = **14:1**

} **(Polybius, 5.79)**

- Pro-Ptolemaic source, given the smaller Seleucid figure?
  - Bar-Kochva (1976) 128-9.
  - Momigliano (1929) 189.

- Seleucid figure larger than Antiochus' actual force?
  - Walbank (1957) 607.

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Magnesia (190 B.C.)

Infantry	*Cavalry*	*Ratio*
60,000 (60,900?)	12,000+ (12,200?)	***Ca.* 5:1 (4.9:1?)**

- Antiochus III's force
  - 'The **total force** of Antiochus was **70,000**' (Ἀντιόχῳ δ᾽ ἦν μὲν ὁ στρατὸς ἅπας ἑπτακισμύριοι) – **Appian, *Syriaca* 32**
  - '**60,000 infantry** and **more than 12,000 cavalry**' (*sexaginta milia peditum, plus duodecim milia equitum*) – **Livy, 37.37.9**

- Livy's description of the cavalry **(Livy, 37.40)**:

Cavalry	• 6,000 Cataphracts • 1,000 *Agema* • 1,000 Companions • 1,200 Dahae • 2,500 Galatains • ? 'Tarentines'	}	**TOTAL = 11,700 + ? 'Tarentines'**

- 'Tarentines' are often assumed to have been 500 strong, bringing the **total to 12,200**

Magnesia (190 B.C.)

Infantry	*Cavalry*	*Ratio*
60,000 (60,900?)	12,000+ (12,200?)	***Ca.* 5:1 (4.9:1?)**

- Livy's description of the infantry **(Livy, 37.40)**:

Infantry		
	• 16,000 Phalanx • ? (10,000?) *Argyraspides* • 3,000 Galatians • 1,500 Cretans • 1,500 Trallians • 2,500 Mysians • 8,000 Cyrtians and Elymaeans • 2,000 Cappadocians • 2,700 Auxiliaries	• 1,000 Neo-Cretans • 1,500 Carians and Cilians • 1,500 Trallians • 4,000 Pisidians, Pamphylians, Lycians **TOTAL = 55,200** (assuming the *Argyraspides* were 10,000 strong)

• No mention of the elephant-guards (usually *ca.* 50 men per elephant) = 2,700 (for the 54 elephants)

• No mention of the camp guards (estimated to be *ca.* 3,000 strong)

• These extra figures give **a new total of 60,900**

Raphia vs. Magnesia

Battle	*Infantry*	*Cavalry*	*Ratio*	*Source(s)*
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Magnesia (190 B.C.)	60,000 (60,900?)	12,000+ (12,200?)	***Ca.* 5:1** **(4.9:1?)**	Livy. 37.37.9, 37.40 (cf. Appian, *Syriaca* 32)

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Ipsus (301 B.C.)

Infantry	*Cavalry*	*Ratio*
64,000	10,500 (15,000?)	**6.1:1 (4.3:1?)**

- **Plutarch, *Demetrius* 28.3**
  - Antigonus: over 70,000 infantry, 10,000 cavalry = ***ca.* 7:1**
  - Allies: **64,000 infantry, 10,500 cavalry** ('500 more horse than Antigonus', ἱππεῖς δὲ πεντακοσίους τῶν ἐκείνου πλείονα) = **6.1:1**

- Seleucus had 'about 12,000 cavalry' (ἱππεῖς… περὶ μυρίους δισχιλίους) the previous winter – **Diodorus, 20.113.4**

- Bar-Kochva (1976) 107, 247 n.11 suggests that the Allied cavalry figure should be 15,000, giving a ratio of **4.3:1**
  - Instead of πεντακοσίους (500), Plutarch's Greek should be πεντακισχιλίους (5,000)
  - Cf. **Plutarch, *Demetrius* 5.2** and **Diodorus, 19.85.3** for a similar disagreement

- I suggest a middle ground between Plutarch and Bar-Kochva, giving a ratio of **5:1**

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Antiochus' Eastern Expedition (*ca.* 212-206 B.C.)

Infantry	*Cavalry*	*Ratio*
100,000	20,000	5:1

- 'so large a force' (δυνάμει τηλικαύτῃ) – **Polybius, 10.28.1**
- **Justin, 41.5.7**
  - 'Antiochus, the son of Seleucus, who was at the head of **100,000 foot and 20,000 horse**' (*Antiochum, Seleuci filium, centum milibus peditum et XX milibus equitum instructum*)
- Forced night march to Tapuria (*ca.* 208 B.C.)
  - '… on the third day, Antiochus gave orders for the rest of his army to start next day at daybreak, while he himself, **with the cavalry and light-armed troops and 10,000 *peltasts*** (ἀναλαβὼν τοὺς ἱππέας καὶ τοὺς εὐζώνους, ἅμα δὲ πελταστὰς μυρίους, προῆγε νυκτός), advanced during the night, marching quickly.' – **Polybius, 10.49.2-4**

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Emmaus (165 B.C.)

Infantry	*Cavalry*	*Ratio*
40,000 *(5,000)*	7,000 *(1,000)*	**5.7:1** ***(5:1)***

- **I *Maccabees*, 3.38-9**
  - 'Lysias chose Ptolemy son of Dorymenes, and Nicanor and Gorgias… and sent with them **40,000 infantry and 7,000 thousand cavalry**'

  (αὶ ἐπέλεξεν Λυσίας Πτολεμαῖον τὸν Δορυμένους καὶ Νικάνορα καὶ Γοργίαν… καὶ ἀπέστειλεν μετ' αὐτῶν τεσσαράκοντα χιλιάδας ἀνδρῶν καὶ ἑπτακισχιλίαν ἵππον)

- **I *Maccabees*, 4.1**
  - 'Now Gorgias took **5,000 infantry and 1,000 picked cavalry**, and this division moved out by night'

  (καὶ παρέλαβεν Γοργίας πεντακισχιλίους ἄνδρας καὶ χιλίαν ἵππον ἐκλεκτήν καὶ ἀπῆρεν ἡ παρεμβολὴ νυκτὸς)

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- **I *Maccabees*, 3.37**
  - ‘Then the king took **the remaining half of his forces** and left Antioch his capital in the 147th year. He crossed the Euphrates and went through the upper provinces.’

(καὶ ὁ βασιλεὺς παρέλαβεν τὰς ἡμίσεις τῶν δυνάμεων τὰς καταλειφθείσας καὶ ἀπῆρεν ἀπὸ Ἀντιοχείας ἀπὸ πόλεως βασιλείας αὐτοῦ ἔτους ἑβδόμου καὶ τεσσαρακοστοῦ καὶ ἑκατοστοῦ καὶ διεπέρασεν τὸν Εὐφράτην ποταμὸν καὶ διεπορεύετο τὰς ἐπάνω χώρας)

Emmaus (165 B.C.)

Infantry	*Cavalry*	*Ratio*
40,000 *(5,000)*	7,000 *(1,000)*	**5.7:1** ***(5:1)***

- **I *Maccabees*, 3.27**
  - '[Antiochus] gathered all the forces of his Empire, a very powerful army'

  (συνήγαγεν τὰς δυνάμεις πάσας τῆς βασιλείας αὐτοῦ παρεμβολὴν ἰσχυρὰν σφόδρα)

- **II *Maccabees*, 8.9**
  - 'Then Ptolemy promptly appointed Nicanor son of Patroclus, one of the king's chief Friends, and sent him, in command of **not less than 20,000**'

  (ὁ δὲ ταχέως προχειρισάμενος Νικάνορα τὸν τοῦ Πατρόκλου τῶν πρώτων φίλων ἀπέστειλεν ὑποτάξας παμφύλων ἔθνη οὐκ ἐλάττους τῶν δισμυρίων)

Beth-Zur (164 B.C.)

Infantry	*Cavalry*	*Ratio*
60,000	5,000	12:1

- I ***Maccabees*, 4.28**
  - ‘But the next year [Lysias] mustered **60,000 picked infantry and 5,000 cavalry**’

  (καὶ ἐν τῷ ἐρχομένῳ ἐνιαυτῷ συνελόχησεν ἀνδρῶν ἐπιλέκτων ἑξήκοντα χιλιάδας καὶ πεντακισχιλίαν ἵππον)

- **II *Maccabees*, 11.2, 11.4**
  - ‘[Lysias] gathered about **80,000 infantry** and… his **thousands of cavalry**’

  (συναθροίσας περὶ τὰς ὀκτὼ μυριάδας… καὶ ταῖς χιλιάσιν τῶν ἱππέων)

- Still no more than half of the army

- Typical battlefield strength of the full Seleucid army = 60,000-80,000 men

Seleucid Infantry:Cavalry Ratios

Battle	*Infantry*	*Cavalry*	*Ratio*	*Source(s)*
Ipsus (301 B.C.)	64,000	10,500 (15,000?)	**6.1:1 (4.3:1?)**	Plutarch, *Demetrius* 28.3 (Cf. Bar-Kochva (1976) 107)
Raphia (217 B.C.)	62,000	6,000	**10.3:1**	Polybius, 5.79.13
Antiochus III's eastern expedition (*Ca.* 212-206 B.C.)	100,000	20,000	**5:1**	Justin, 41.5.7
Pergamum (190 B.C.)	4,000	600	**6.6:1**	Livy, 37.20.7
Magnesia (190 B.C.)	60,000 (60,900?)	12,000+ (12,200?)	***Ca.* 5:1 (4.9:1?)**	Livy. 37.37.9, 37.40
Night attack prior to Emmaus (165 B.C.)	5,000	1,000	**5:1**	I *Maccabees*, 4.1
Emmaus (165 B.C.)	40,000	7,000	**5.7:1**	I *Maccabees*, 3.39
Beth-Zechariah (162 B.C.)	50,000	*Ca.* 5,000	***Ca.* 10:1**	Josephus, *Bellum Judaicum* 1.41
Elasa (160 B.C.)	20,000	2,000	**10:1**	I *Maccabees*, 9.4

Beth-Zechariah (162 B.C.)

Infantry	*Cavalry*	*Ratio*
50,000	*Ca.* 5,000	***Ca.* 10:1**

- **I *Maccabees*, 6.30**
  - 'The number of his forces was **100,000 infantry, 20,000 horsemen**, and 32 elephants'

    (καὶ ἦν ὁ ἀριθμὸς τῶν δυνάμεων αὐτοῦ ἑκατὸν χιλιάδες πεζῶν καὶ εἴκοσι χιλιάδες ἱππέων καὶ ἐλέφαντες δύο καὶ τριάκοντα)
  - (See also: **Josephus, *Antiquitates Judaicae* 12.366**)

- **II *Maccabees*, 13.2**
  - 'a Greek force of **110,000 infantry, 5,300 cavalry**, 22 elephants, and 300 hundred scythed chariots'

    (δύναμιν Ἑλληνικὴν πεζῶν μυριάδας ἕνδεκα καὶ ἱππέων πεντακισχιλίους τριακοσίους καὶ ἐλέφαντας εἴκοσι δύο ἅρματα δὲ δρεπανηφόρα τριακόσια)

Beth-Zechariah (162 B.C.)

Infantry	*Cavalry*	*Ratio*
50,000	*Ca.* 5,000	***Ca.* 10:1**

- **II *Maccabees*, 13.2**
  - ‘a Greek force of **110,000 infantry, <u>5,300 cavalry</u>**, 22 elephants, and 300 hundred scythed chariots’

    (δύναμιν Ἑλληνικὴν πεζῶν μυριάδας ἕνδεκα καὶ ἱππέων πεντακισχιλίους τριακοσίους καὶ ἐλέφαντας εἴκοσι δύο ἅρματα δὲ δρεπανηφόρα τριακόσια)

- **Josephus, *Bellum Judaicum* 1.41**
  - ‘having collected **50,000 infantry, about <u>5,000 horse</u>** and 80 elephants’

    (συναγαγὼν γοῦν πεζῶν μὲν μυριάδας πέντε, ἱππεῖς δ᾽ εἰς πεντακισχιλίους, ἐλέφαντας δὲ ὀγδοήκοντα)

Elasa (160 B.C.)

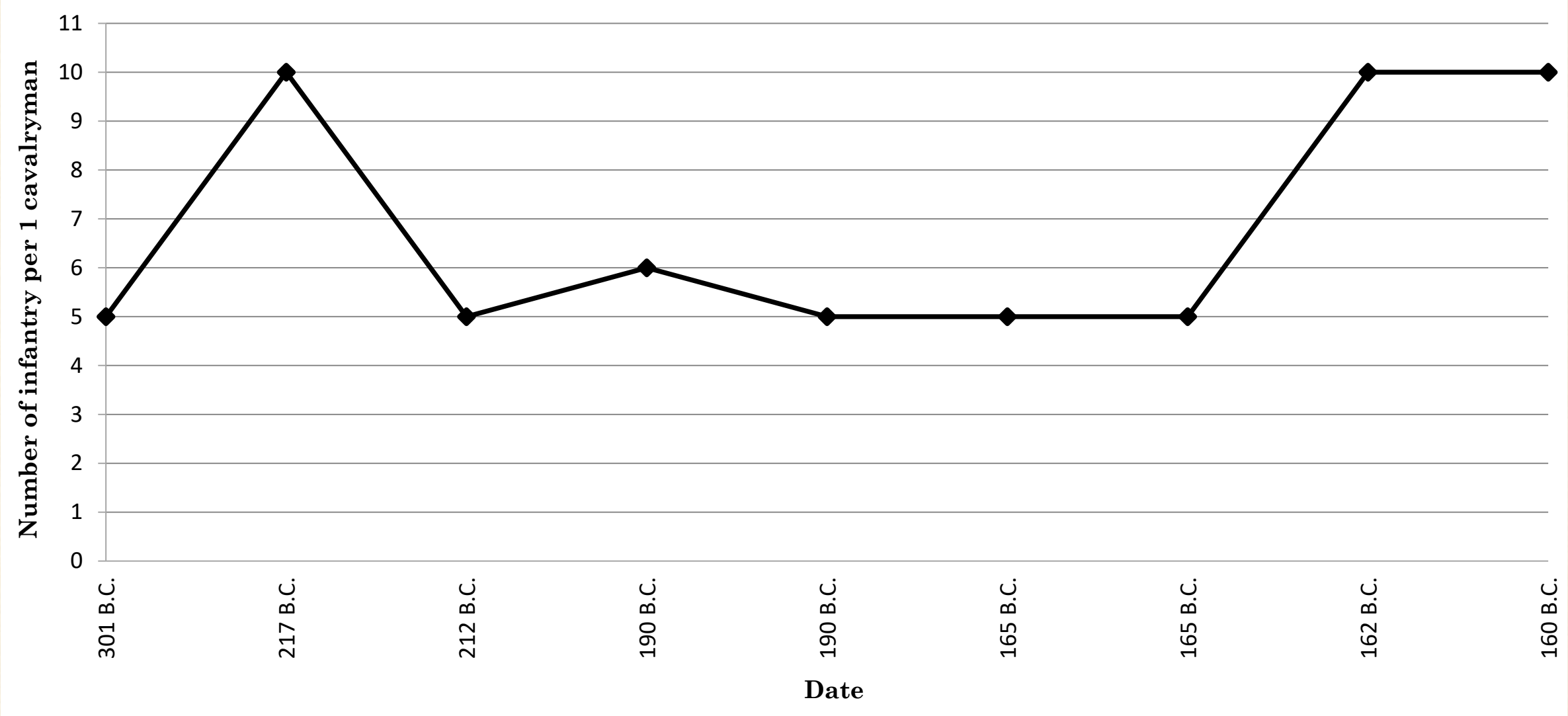
Infantry	*Cavalry*	*Ratio*
20,000	2,000	10:1

- **I *Maccabees*, 9.4**
  - '… then they marched off and went to Berea with **20,000 infantry and 2,000 cavalry**' (… καὶ ἀπῆραν καὶ ἐπορεύθησαν εἰς Βερεαν ἐν εἴκοσι χιλιάσιν ἀνδρῶν καὶ δισχιλίᾳ ἵππῳ)

- **Judas Maccabaeus' forces:**
  - 'Now Judas was encamped in Elasa, and with him were 3,000 picked men. When they saw the huge number of the enemy forces, they were greatly frightened, and many slipped away from the camp, until **no more than 800 of them were left.**'

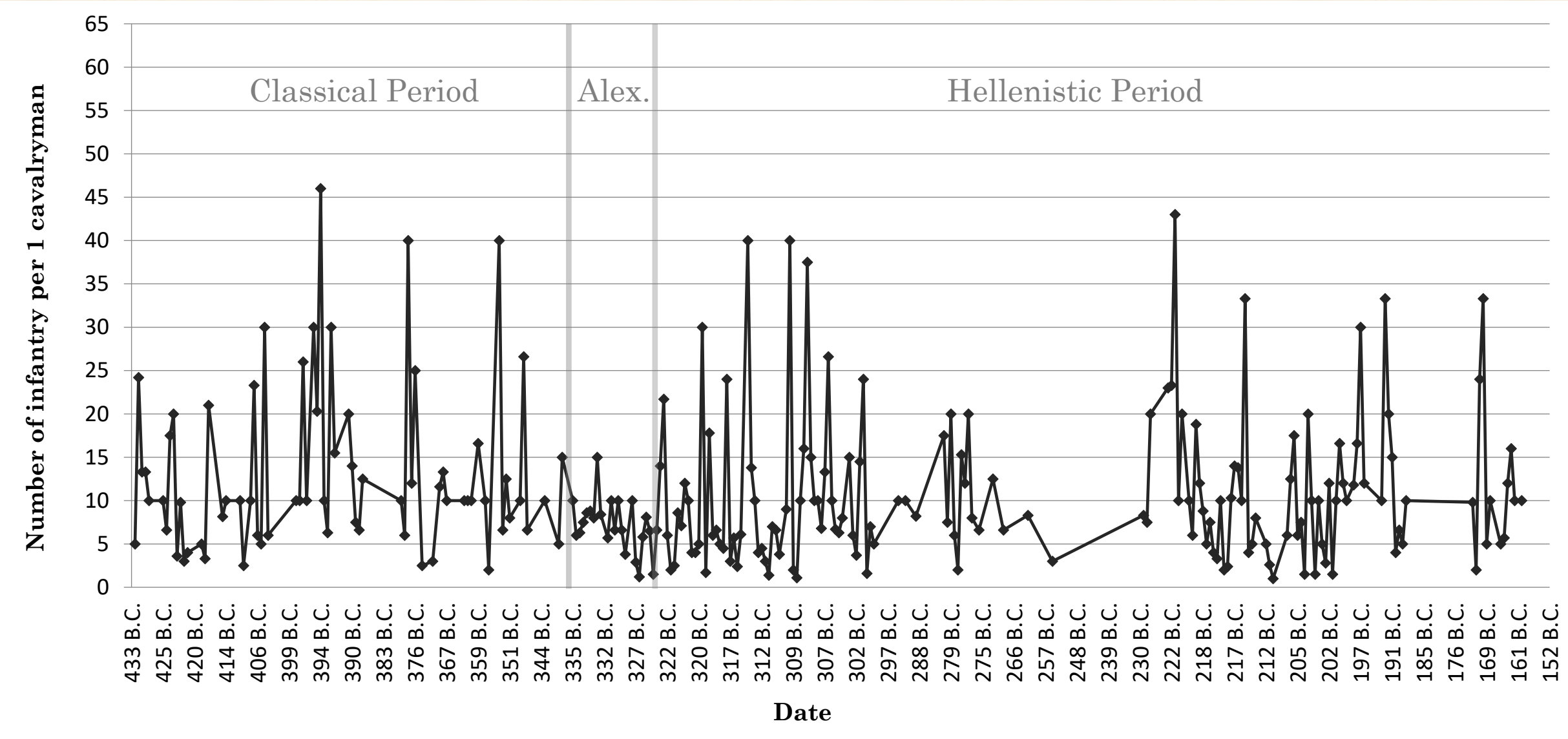
    (καὶ Ιουδας ἦν παρεμβεβληκὼς ἐν Ελασα καὶ τρισχίλιοι ἄνδρες μετ' αὐτοῦ ἐκλεκτοί καὶ εἶδον τὸ πλῆθος τῶν δυνάμεων ὅτι πολλοί εἰσιν καὶ ἐφοβήθησαν σφόδρα καὶ ἐξερρύησαν πολλοὶ ἀπὸ τῆς παρεμβολῆς οὐ κατελείφθησαν ἐξ αὐτῶν ἀλλ' ἢ ὀκτακόσιοι ἄνδρες) – **I *Maccabees*, 9.5-6**

Seleucid Infantry:Cavalry Ratios



* Not including Selge (218 B.C.), Thermopylae (191 B.C.), Beth-Zur (164 B.C.)

Classical Greek & Hellenistic Infantry:Cavalry Ratios



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