# Lacerta (Lac)

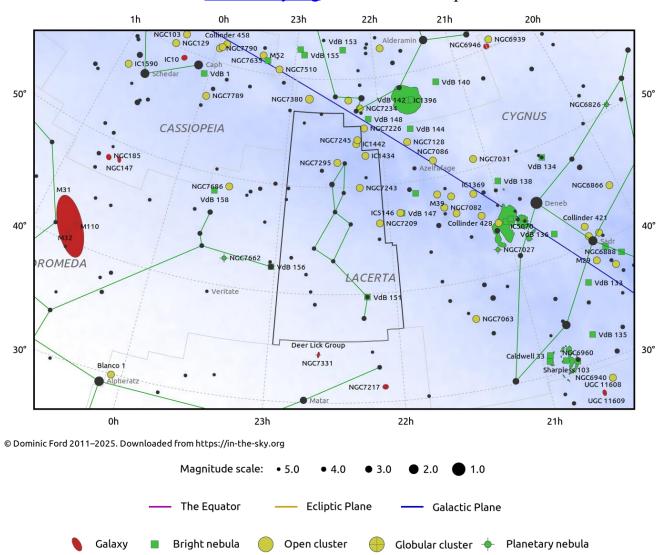
Evening Visibility: August - October

Online Information: Lacerta

More Online Information: NGC-7209, NGC-7243, HD-211337, 8 Lac, 10 Lac, 12 Lac, DV Lac,

TX Lac, U Lac, TV Lac

### **In-The-Sky.org** Constellation Map

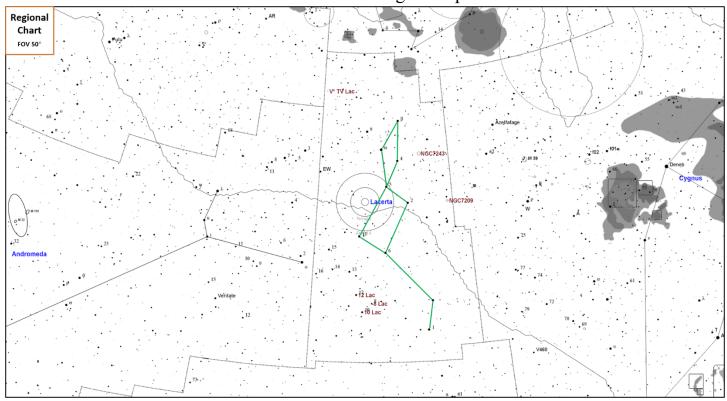


Lacerta is a small constellation between Cygnus and Andromeda and represents a lizard. The constellation doesn't contain any bright stars, but does contain a number of open clusters. Lacerta was introduced in 1690 by the Polish astronomer Johannes Hevelius.

#### **Constellation Highlights**

- **8** Lac (MS-11) Incredible multiple star system/tiny open cluster.
- NGC-7209 (OC) Nice binocular open cluster

### Constellation Targets Map

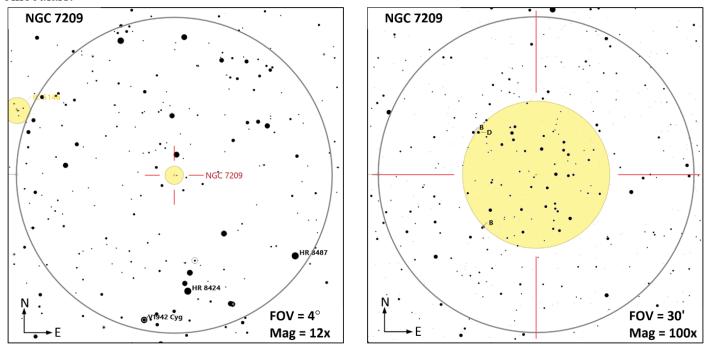


## **Objects Summary**

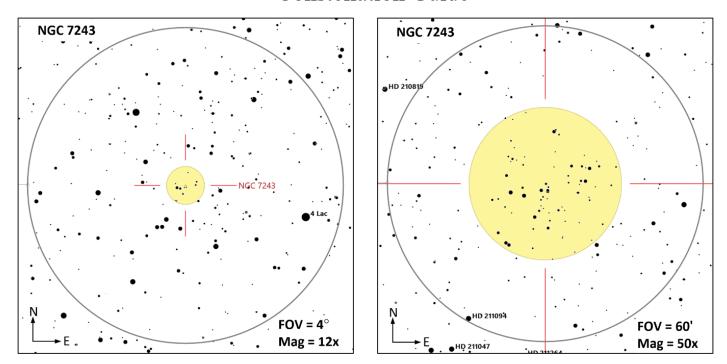
Object (Type)	Ref	Aliases	Stats
NGC-7209 (OC)	1	Cr 444	M = 7.7   Size = 25'   SB = 23.3
NGC-7243 (OC)	1	CR 448, C 16	M = 6.4   Size = 21'   SB = 21.6
HD-211337 (MS)	1	SAO-051809, STF-2890, ADS 15785	M = 9.4, 9.7, 9.4   Sep AB=9.4", AC=73.1"   PA AB=278°, AC=186°
8 Lac (MS-11)	1	SAO-072509, HIP 111546, HR 8603, HD 214168, STF 2922, ADS 16095	AB   Mag=5.7, 6.3   Sep=22"   PA=186°   AC   Mag=5.7, 10.4   Sep=49"   PA=167°   AD   Mag=5.7, 9.1   Sep=82"   PA=145°   BC   Mag=6.3, 10.4   Sep=28"   PA=154°   BD   Mag=6.3, 9.1   Sep=67"   PA=130°   BE   Mag=6.3, 7.3   Sep=324"   PA=242°   BF   Mag=6.3, 11.0   Sep=128"   PA=175°   CD   Mag=10.4, 9.1   Sep=42"   PA=115°

Object (Type)	Ref	Aliases	Stats
10 Lac (DS)	1	SAO-072575, HIP 111841, HR 8622, HD	<b>AB</b>  M=4.8, 10.2   Sep=62.6"   PA=47°
	_	214680, ADS 16148, SACDBL1071	
12 Lac (DS)	1	SAO-072627, HIP 112031, HD 214993,	<b>AB</b>   M=5.2, 10.8   Sep=65.8"   PA=11.4°
	_	HR 8640, S 815,DD Lac,	
TV Lac (CS)		SAO-034966, HIP 113260, HD 216913	M = 9.39

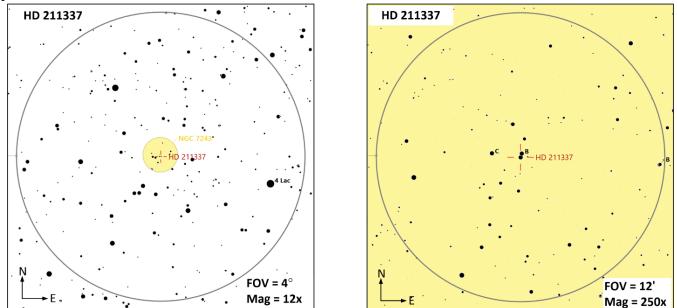
**NGC-7209** (OC | M = 7.7 | Size = 25' | SB = 23.3 |) – A loose cluster composed of about 150 stars of magnitude 9 to 15. This open cluster is approximately 3,800 ly away and should make a good target for binoculars.



NGC-7243 (OC | M = 6.4 | Size = 21' | SB = 21.6 |) – Also known as Caldwell 16, this open cluster is located about 3° east of Alpha Lac and consists of about 70 stars. In the center of this open cluster the triple star system HD-211337 (see below) is nested.

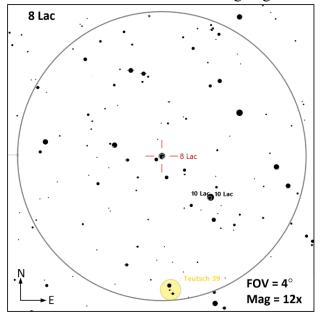


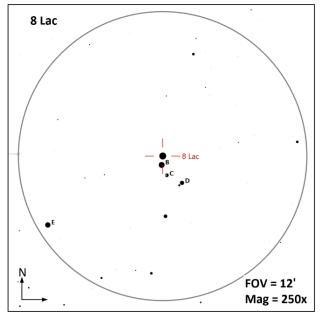
**HD-211337** (MS | M = 9.4, 9.7, 9.4 | Sep AB=9.4", AC=73.1" | PA AB=278°, AC=186° |) – This triple star system is embedded in the Open Cluster NGC-7243 and is composed of thee 9<sup>th</sup> magnitude stars that should be easy to separate.



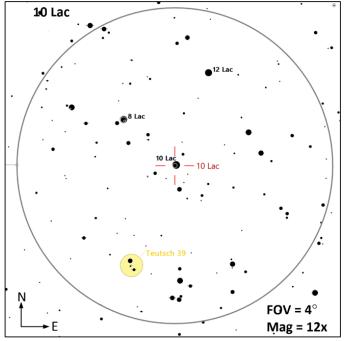
**8 Lac** (MS-11 **AB** | Mag=5.7, 6.3 | Sep=22" | PA=186° || **AC** | Mag=5.7, 10.4 | Sep=49" | PA=167° || **AD** | Mag=5.7, 9.1 | Sep=82" | PA=145° | **BC** | Mag=6.3, 10.4 | Sep=28" | PA=154° | **BD** | Mag=6.3, 9.1 | Sep=67" | PA=130° || **BE** | Mag=6.3, 7.3 | Sep=324" | PA=242° || **BF** | Mag=6.3, 11.0 | Sep=128" | PA=175° | **CD** | Mag=10.4, 9.1 | Sep=42" | PA=115° |) – This multiple star system is composed of many stars (11 visible). Nine

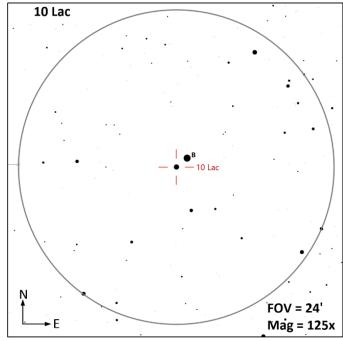
components may be able to be identified with a large enough aperture telescope. Some may consider this a small cluster, and it is not known for certain how many of these stars are actually physically associated with each other. One of the more interesting targets in this constellation.



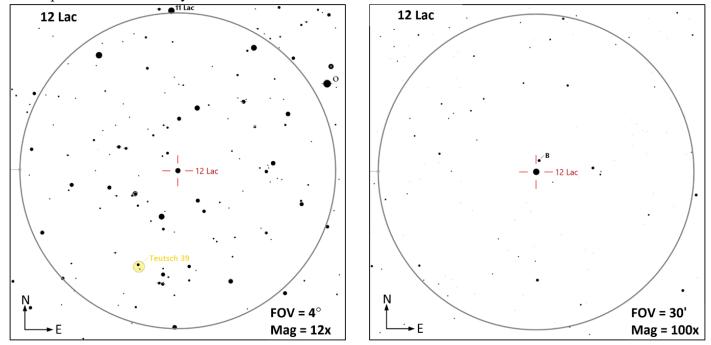


10 Lac (DS |M=4.8, 10.2| Sep = 62.6"  $|PA=47^{\circ}|$ ) – Located about 1° south east of 8 Lac, this double star system is 1,726 ly from our sun. The companion star in this system is quite dim at 10.2 magnitude. It is suspected that these two stars are not physically associated with each other.

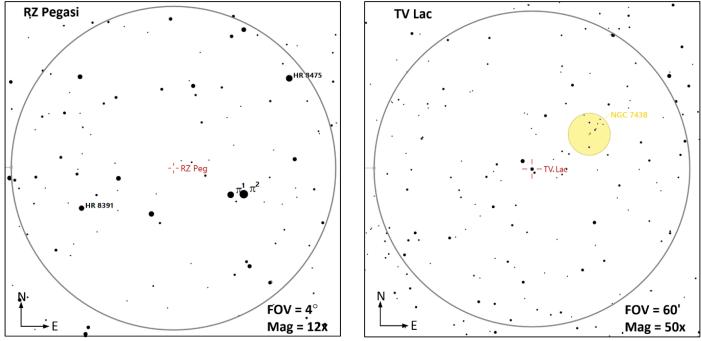




12 Lac (DS | M = 5.2, 10.8 | Sep = 65.8" | PA = 11.4° |) – Located about 1.5° north west of 8 Lac this double star is located 1,342 ly from our sun. The secondary companion star is quite dim at 10.8 magnitude. The orbital parameters for this system have not been determined.



**TV** Lac (CS  $\mid$  M = 9.39  $\mid$ – This is one of the more prominent Carbon Stars in this constellation and is located on the boarder of Cassiopeia.



### References, Resources and Tools used to create this document

The resources listed below were utilize to generate this document.

#### References

- Books
  - Objects in the Heavens: Peter Birren
  - o <u>Touring the Universe through Binoculars</u>: Philip Harrington
  - o <u>The Deep Sky</u>: Philip Harrington
  - o Double and Multiple Stars and How to Observe Them: James Mullaney
  - o **Sky Spot** Books
    - Bright Telescopic Objects: Brent Watson
    - Select Double Stars: Brent Watson
    - Overlooked Objects: Bret Watson
- Asterisms
  - o Astronomical League: <u>Asterisms observing program</u> List
  - o Asterisms: Demeiza Ramakers
  - o Pattern Asterisms: John Chiravalle
- Saguaro Astronomy Club
  - Asterisms List
  - o 110 Best of the NGC
  - Red Stars List
- Online
  - o Wikipedia
  - o The Garden Astronomer: <u>Double, Multiple, and Special Star Observations List</u>
  - o Sky & Telescope: Colored Double Stars, Real and Imagined
  - o In-The-Sky.org
  - o Constellation-guide.com

#### **Applications**

- SkyTools 4.1 Visual Professional
- AstroPlanner Version 2.4
- <u>Cartes du Ciel</u> Version 4.3
- Sky Safari Pro 7
- Microsoft Office Home and business 2021 Word
- Microsoft Visio Professional 2010
- IrfanView Version 4.72