



ANNIE JUMP CANNON

FUN FACTS:

- (1) During the period between her late childhood and early adulthood, she suffered from total hearing loss.
- (2) There is an award named after her called the Annie Jump Cannon Award in Astronomy. It is for outstanding research and promises for future research by a postdoctoral woman.
- (3) She has been credited with manually cataloging 350,000 stars, earning her the nickname "the census taker of the sky."

MAJOR ACCOMPLISHMENTS

1901:

Published her first catalog of stars

1921:

Became the first woman to receive a Doctorate of Astronomy degree from Groningen University

1922:

The International Astronomical Union adopted her method (Harvard Classification scheme)

1925:

Earned her first honorary doctorate from Oxford University

1931:

Awarded the Henry Draper Medal of the National Academy of Sciences

Annie Jump Cannon was born in 1863 and died in 1941. She was an American astronomer who specialized in the classification of stellar spectra.

She studied physics and astronomy at Wellesley College, graduating in 1884. Between 1884 and 1894, she dabbled in photography, but once her mom died, she returned to her studies.

In 1895, she enrolled at Radcliffe and continued her studies under Edward Pickering. In 1901, she published a catalog of stars in which she drastically simplified Fleming's scheme to the classes O, B, A, F, G, K, and M.

Later on, it was discovered that her classification scheme was classifying stars by their temperature, and these spectral classifications became universally adopted. Annie Cannon also discovered 300 variable stars and 5 novae.

After 1924, she extended her work cataloging thousands of stars for the two-volume *Henry Draper Extension*.

R.R.	Constellation	Dist.	DM.	A.G.C.	R.A. 1900	Dec. 1900	Magn.	Class.	Rev.	No. Plate	Plate Numbers	
...	Cetus	---	334	783	0	47.3	-23	9	G 0	3	1 X 11830	
...	Cetus	---	376	791	47.7	-24	33	5.60	K 0	---	1 X 11798	
247	Cetus	---	338	799	48.3	-23	19	6.44	F 2	4	2 X 11798, B 17413	
251	Tucana	---	84	806	48.4	-64	17	7.02	F 5	---	2 X 11100, X 12184	
257	Tucana	---	83	825	49.4	-63	25	5.64	Mb	---	2 X 11100, X 12184	
270	Tucana	A'	40	860	51.2	-70	4	5.34	K 0	---	2 X 12655, X 12692	
281	Tucana	---	50	910	54.2	-61	14	6.37	A 3	---	1 X 11102	
288	Sculptor	ε	260	943	56.7	-39	28	5.57	K 0	---	1 X 11125	
...	Sculptor	---	344	947	56.9	-38	45	6.66	K 0	---	1 X 11125	
...	Tucana	---	58	950	57.2	-61	24	6.96	K	---	1 X 11102	
293	Sculptor	σ	410	953	57.7	-32	6	5.52	A 2	---	2 X 12176, X 12684	
295	Phoenix	---	220	959	57.8	-57	33	6.00	K 0	---	2 X 11104, X 11118	
...	Phoenix	---	269	972	58.7	-41	33	7.16	Ma	---	1 X 11121	
...	Phoenix	---	389	1048	1	2.9	-42	17	7.26	G	---	2 X 11121, B 12007
331	Phoenix	v	391	1052	3.2	-42	1	5.15	A 3	---	1 X 11121	
332	Tucana	κ	89	1057	3.4	-62	19	5.52	K 0	---	1 X 11102	
...	Sculptor	---	429	1132	8.2	-33	44	6.96	K	---	1 X 12246	
359	Sculptor	---	420	1133	8.2	-38	23	5.91	A 5	---	1 X 11361	
...	Tucana	---	127	1237	14.0	-65	44	r	Mb	5	1 X 11099	
...	Sculptor	---	592	1323	18.9	-31	28	5.82	K 5	---	2 X 11395, X 11441	
...	Sculptor	---	548	1334	19.6	-32	20	6.94	G 5	---	1 X 11395	
408	Phoenix	---	493	1345	20.2	-42	1	5.33	K 0	---	1 X 11415	
420	Hydrus	---	157	1373	21.7	-64	53	5.82	K 5	---	1 X 11099	
...	Sculptor	---	478	1379	22.5	-30	45	6.84	K	---	1 X 11395	
436	Sculptor	---	502	1435	25.7	-26	43	6.00	K	---	2 B 4654, B 37064	
...	Sculptor	---	504	1457	26.9	-30	30	6.75	K 0	---	1 X 12195	
...	Cetus	---	506	1461	27.1	-30	48	5.77	K 0	---	1 X 11819, X 12195	
441	Cetus	---	651	1467	27.4	-24	9	7.22	A 5	---	1 X 11819	
445	Sculptor	---	589	1493	28.4	-37	22	5.49	K 0	---	1 X 11371	
...	Cetus	---	658	1492	28.5	-24	41	6.92	K 0	---	1 X 11813	
...	Cetus	---	666	1523	30.1	-24	12	6.53	K 0	---	1 X 11813	
...	Sculptor	---	540	1546	31.6	-30	25	7.13	F 0	6	3 X 11857, X 12105, X 12240	
462	Sculptor	τ	1547	31.6	-30	25	6.01	F 0	---	---	---	
471	Sculptor	---	620	1590	34.0	-37	2	5.96	G 5	---	2 X 12971, B 5613	
473	Cetus	---	272	1588	34.1	-21	47	5.68	F	---	1 X 11849	
479	Eridanus	---	358	1606	35.0	-53	56	7.14	F	---	1 X 11403	
480	Eridanus	p	329	1633	36.0	-56	42	6.04	G 5	---	7 X 12251, X 12675	
487	Eridanus	---	1634	36.0	-56	42	5.98	G 5	---	---	---	
497	Sculptor	ω	666	1690	37.6	-32	49	5.28	K 0	---	2 X 12658, B 5667	
498	Sculptor	---	650	1661	37.6	-37	20	5.64	A 0	---	3 X 12665, X 12671, X 12689	
505	Hydrus	---	130	1677	38.4	-61	17	5.58	K 0	---	X 11115	

Cannon, A. *Classification of 1,688 Southern Stars by Means of Their Spectra*

Citation:

1. Cannon, A.; Pickering, E. Classification of 1,688 Southern Stars by Means of Their Spectra. *Annals of Harvard College Observatory* 1912, 56 (5), 115–164.

Summary of Research:

Annie's job was to catalog stars with a magnitude (apparent brightness) of nine or more. Originally, her scheme was based on the strength of the Balmer absorption lines. After absorption lines were understood in terms of stellar temperatures, her initial classification system was rearranged to avoid having to update star catalogs. Each star got a letter designation based on its spectral class: O, B, A, F, G, K, M

STEM Daily Stem News

March 1, 2024 Volume #34, Issue #1

"Interview of the Century"

Introduction:

Hey guys! Welcome back to volume 34 of the Daily Stem News. This volume will include many interviews of world renowned scientists, where this first issue will be very special.

My team and I have figured out how to go back in time, which means we get to interview the best of the best, where time has no limit here.

Without further ado, let us go back to the year 1940 to welcome the woman who loves stars more than I love my job, Miss Annie Jump Cannon!

Start of Official Interview:

Thank you, I really appreciate you taking the time to speak with me as well as giving me the opportunity to be able to hear for a couple of minutes.

presence of the hydrogen lines, so I figured why not create a better solution.

Last Question for the night, would you change being deaf in exchange for your sight?

Heavens no. Before going back to Radcliffe after my mom's death, I actually photographed solar eclipses in Europe. I grew up observing everything. Looking at my surroundings without the presence of sound may be why I was able to catalog stars so fast.

Well, Miss Cannon, thank you for your time, and we absolutely loved being able to talk with you today

How did it feel to be able to say that you created the Harvard Stellar Classification?

Sometimes, it does not feel real. But the more I cataloged stars, the more I realized that there was many

Speaking of your mom, was she eager to ask you some questions, are you ready?

Oh yes, of course. My mother and I watched the stars from the small, home-made observatory we built together. She taught me everything I know about stars. She was the reason I went into science, and when she passed, it just pushed me even more.

I would be honored to answer any questions sent my way!

Miss Cannon, what is your biggest accomplishment thus far?

I would have to say being able to be the first woman to earn a honorary doctorate from Oxford University. It made my heart so warm that not only did all my hard work pay off, but that I could make my mom proud.

Well, Miss Cannon, thank you for your time, and we absolutely loved being able to talk with you today