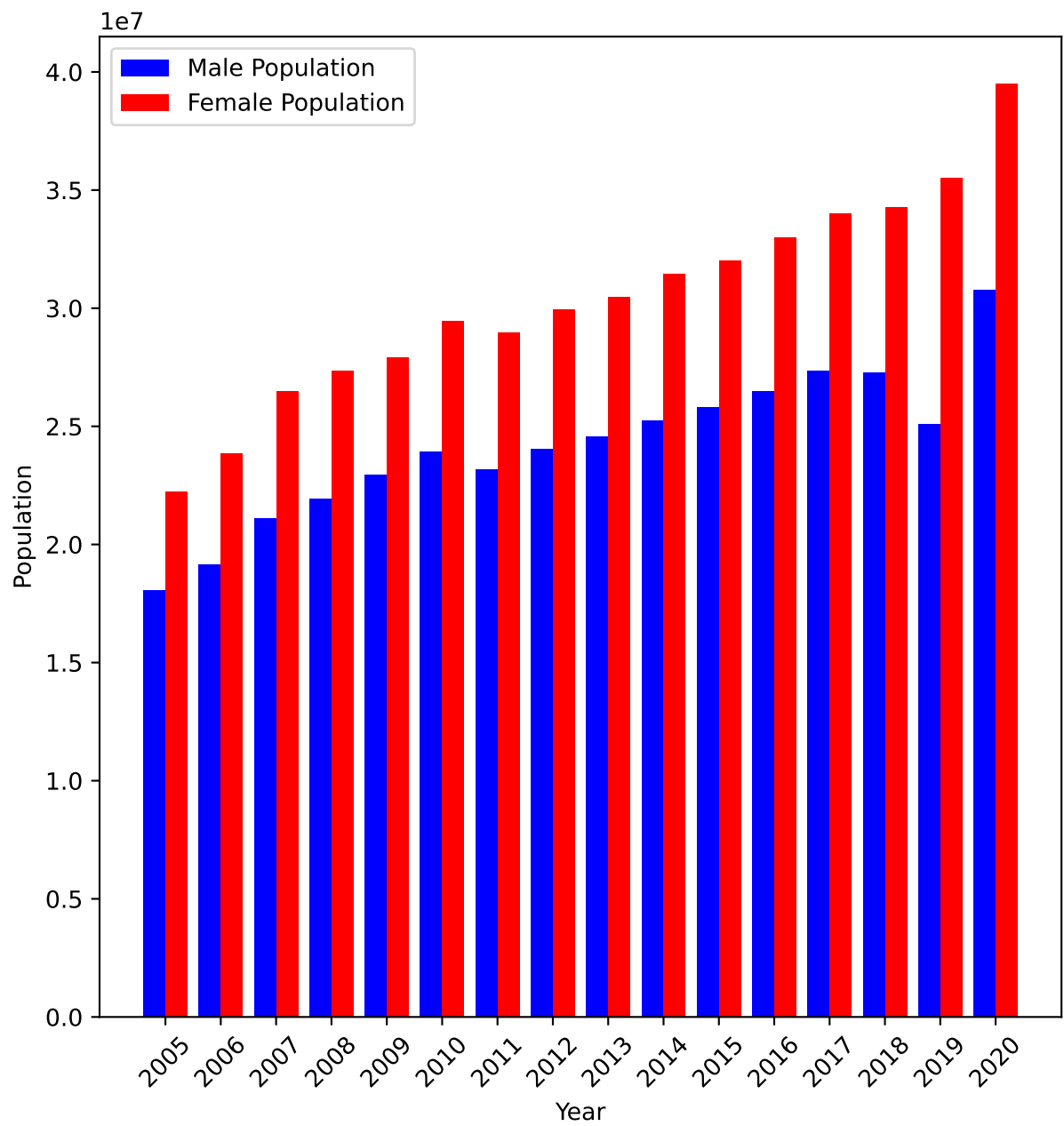


# Population and Mortality Analysis for Cattle in Ethiopia from 2005-2020 using WOA/FAOSTAT/ETHCSA

Sex Distribution of Cattle Population as Calculated from Age Population Statistics

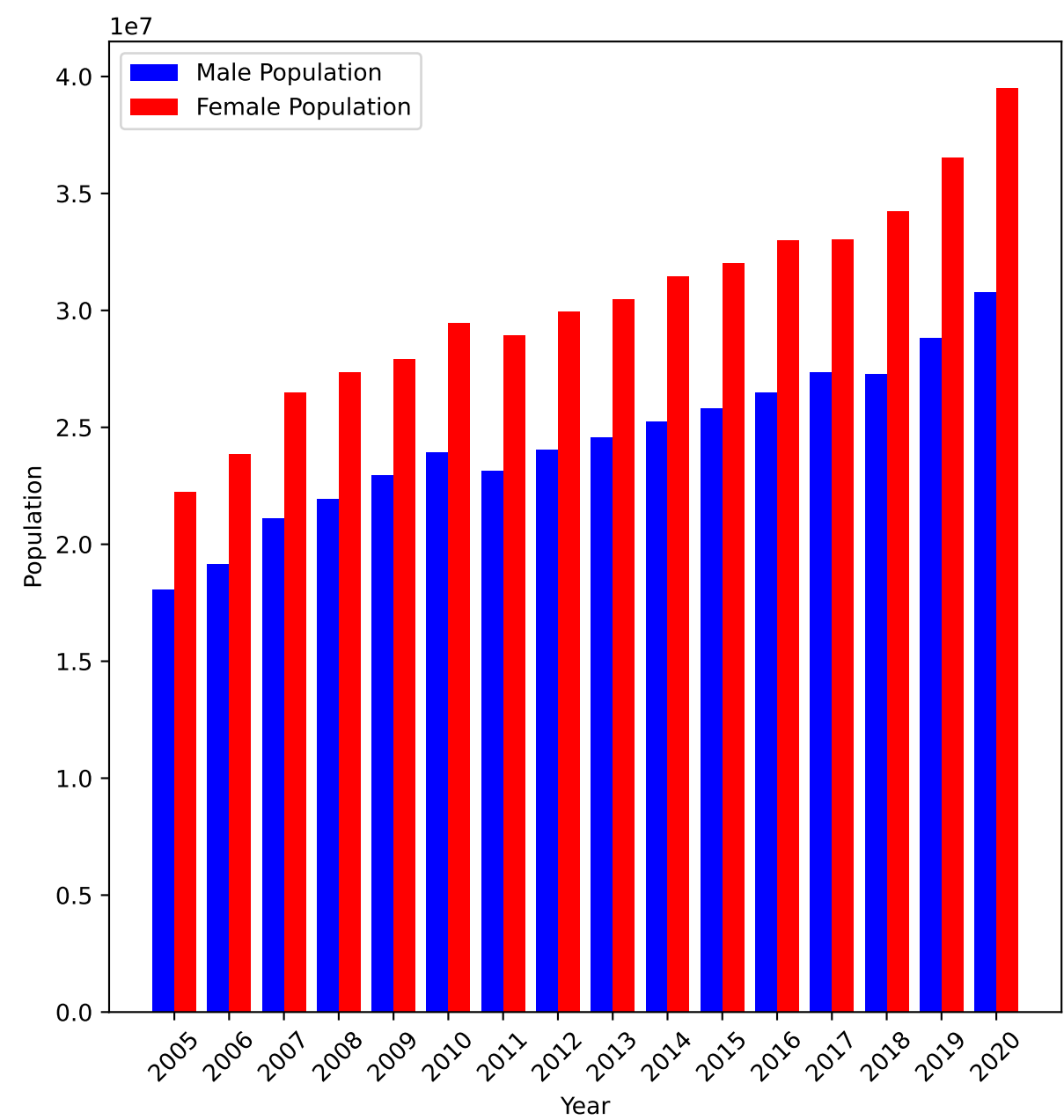


Sex Distribution of Cattle Population as Calculated from Age Population Statistics Table

Year	Male Pop	Female Pop	Total Pop
2005	18045658	22235452	40281110
2006	19159861	23847455	43007315
2007	21101254	26469421	47570675
2008	21946584	27351313	49297898
2009	22962497	27921510	50884005
2010	23917347	29464847	53382194
2011	23159146	28969871	52129017
2012	24033892	29956170	53990061
2013	24555572	30471710	55027280
2014	25262990	31443400	56706389
2015	25805866	32024086	57829953
2016	26478377	33008290	59486667
2017	27367840	34024179	60392019
2018	27269371	34279693	61500000
2019	25090483	35501852	65354090
2020	30772193	39519583	70291776

# Population and Mortality Analysis for Cattle in Ethiopia from 2005-2020 using WOAH/FAOSTAT/ETHCSA

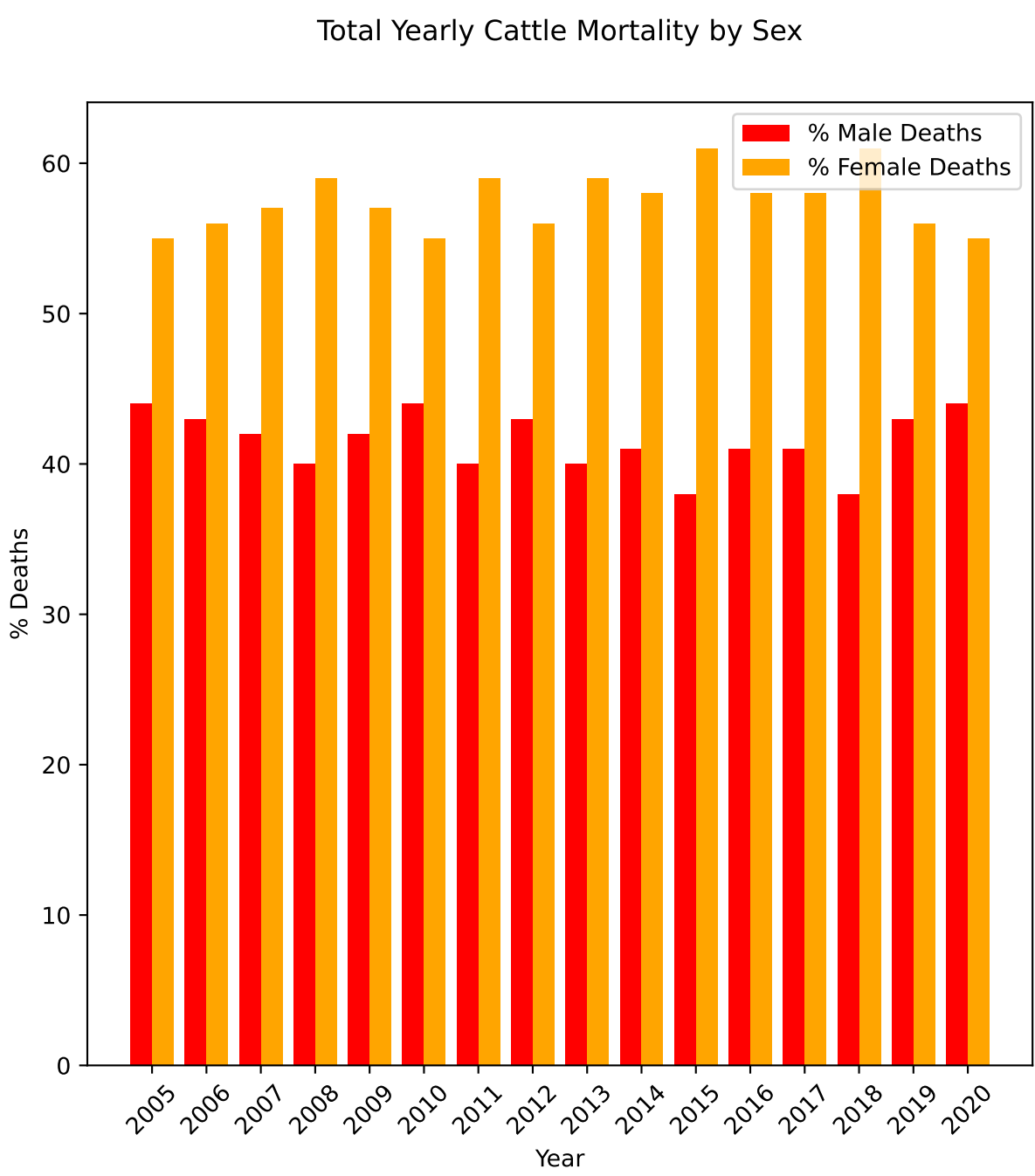
Sex Distribution of Cattle Population as Calculated from Breed Population Statistics



Sex Distribution of Cattle Population as Calculated from Breed Population Statistics

Year	Male Pop	Female Pop	Total Pop
2005	18045658	22235451	40281110
2006	19159860	23847455	43007315
2007	21101255	26469421	47570675
2008	21946585	27351313	49297898
2009	22962497	27921509	50884005
2010	23917347	29464846	53382194
2011	23154181	28939471	52129017
2012	24033892	29956170	53990061
2013	24555570	30471710	55027280
2014	25262989	31443400	56706389
2015	25805866	32024088	57829953
2016	26478378	33008289	59486667
2017	27367840	33024180	60392019
2018	27265774	34244484	61500000
2019	28819941	36534149	65354090
2020	30772192	39519583	70291776

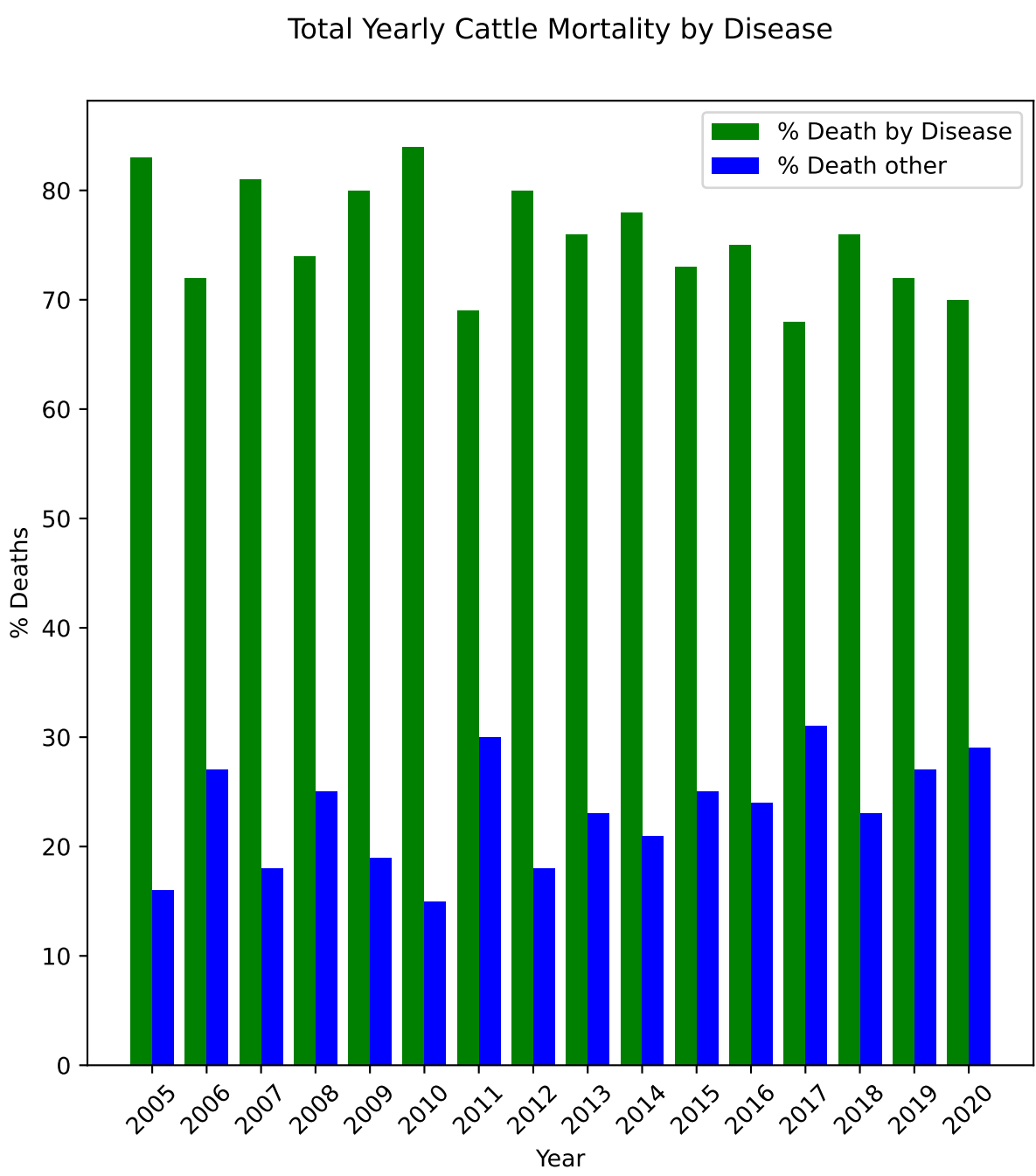
Population and Mortality Analysis for Cattle in Ethiopia from 2005-2020 using WOAAH/FAOSTAT/ETHCSA



Total Yearly Cattle Mortality by Sex Table

Year	% Male Deaths	% Female Deaths	Total Deaths
2005	44	55	3199363
2006	43	56	3241227
2007	42	57	3381417
2008	40	59	6436041
2009	42	57	4529978
2010	44	55	4092986
2011	40	59	5049944
2012	43	56	3663778
2013	40	59	3481333
2014	41	58	3231346
2015	38	61	3925952
2016	41	58	3786213
2017	41	58	4654803
2018	38	61	4267746
2019	43	56	3109310
2020	44	55	3433251

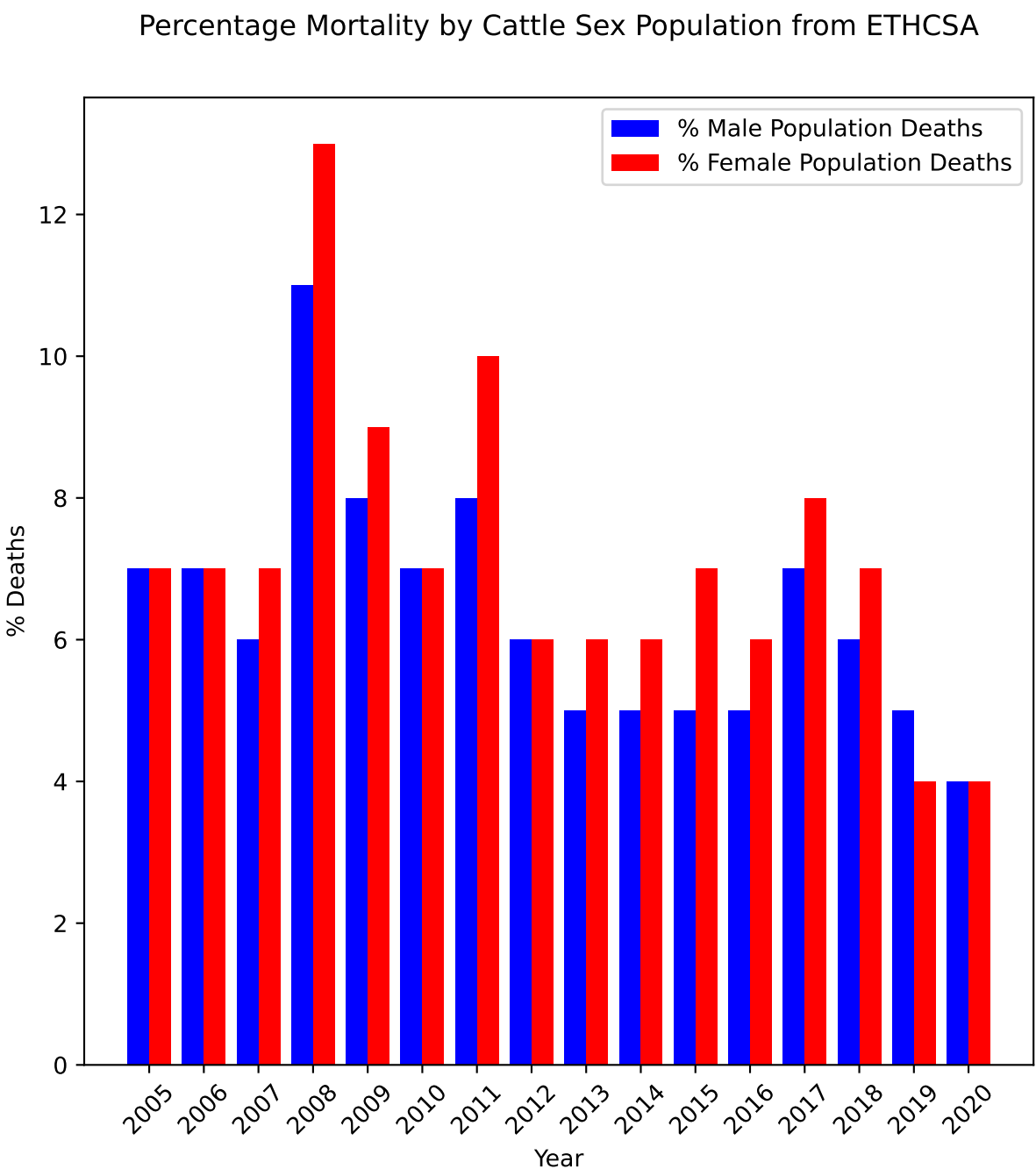
Population and Mortality Analysis for Cattle in Ethiopia from 2005-2020 using WOAAH/FAOSTAT/ETHCSA



Total Yearly Cattle Mortality by Disease Table

Year	% Death Disease	% Death Other	Total Deaths
2005	83	16	3199363
2006	72	27	3241227
2007	81	18	3381417
2008	74	25	6436041
2009	80	19	4529978
2010	84	15	4092986
2011	69	30	5049944
2012	80	18	3663778
2013	76	23	3481333
2014	78	21	3231346
2015	73	25	3925952
2016	75	24	3786213
2017	68	31	4654803
2018	76	23	4267746
2019	72	27	3109310
2020	70	29	3433251

# Population and Mortality Analysis for Cattle in Ethiopia from 2005-2020 using WOAH/FAOSTAT/ETHCSA

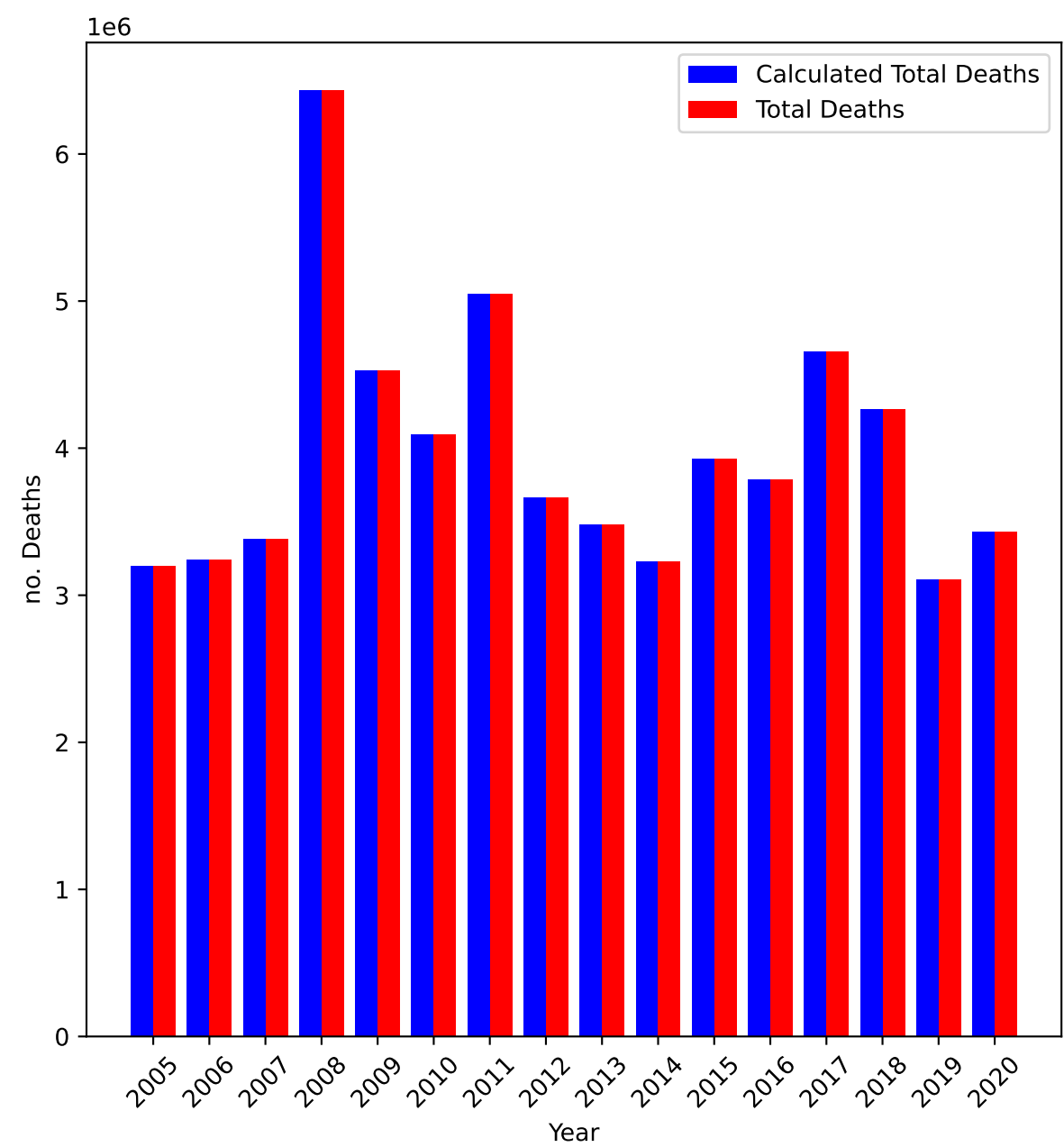


Percentage Mortality by Cattle Sex Population from ETHCSA Table

Year	Male Death Pop	Male Pop	Female Death Pop	Female Pop
2005	1424616	18045658	1774746	22235452
2006	1396757	19159861	1844470	23847455
2007	1436658	21101254	1944759	26469421
2008	2624920	21946584	3811121	27351313
2009	1941127	22962497	2588851	27921510
2010	1811526	23917347	2281460	29464847
2011	2058710	23159146	2991234	28969871
2012	1608326	24033892	2055452	29956170
2013	1421480	24555572	2059852	30471710
2014	1333136	25262990	1898211	31443400
2015	1519213	25805866	2406738	32024086
2016	1576038	26478377	2210175	33008290
2017	1924023	27367840	2730780	34024179
2018	1645014	27269371	2622732	34279693
2019	1341343	25090483	1767968	35501852
2020	1534467	30772193	1898783	39519583

Population and Mortality Analysis for Cattle in Ethiopia from 2005-2020 using WOAAH/FAOSTAT/ETHCSA

Discrepancies in Cattle Mortality from Total Reported and Sum of Sex-Specific Mortality

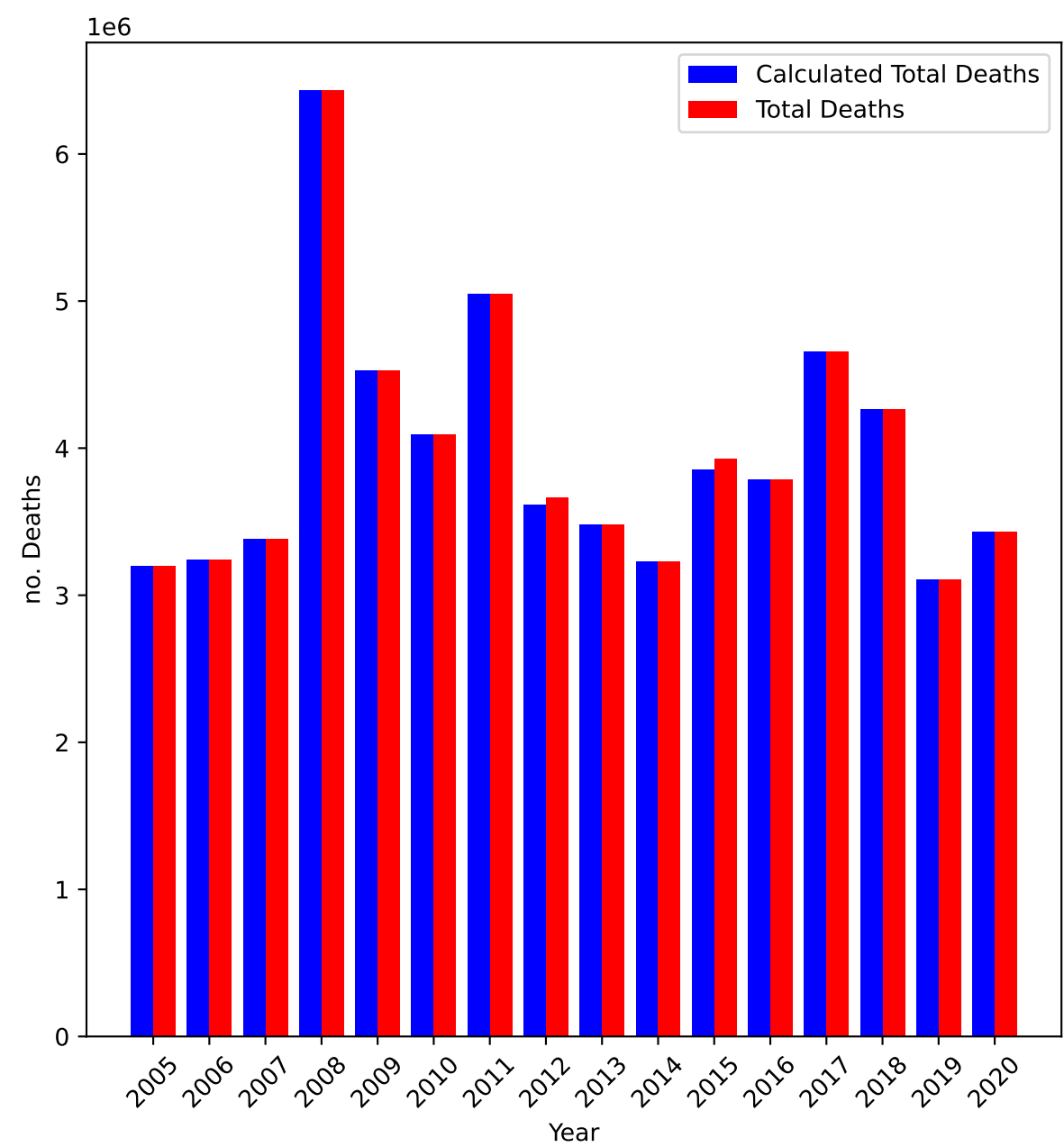


Discrepancies in Cattle Mortality from Total Reported and Sum of Sex-Specific Mortality Table

Year	Calc. Total Deaths	Total Deaths	% Difference
2005	3199362	3199363	0
2006	3241227	3241227	0
2007	3381417	3381417	0
2008	6436041	6436041	0
2009	4529978	4529978	0
2010	4092986	4092986	0
2011	5049944	5049944	0
2012	3663778	3663778	0
2013	3481332	3481333	0
2014	3231347	3231346	0
2015	3925951	3925952	0
2016	3786213	3786213	0
2017	4654803	4654803	0
2018	4267746	4267746	0
2019	3109311	3109310	0
2020	3433250	3433251	0

# Population and Mortality Analysis for Cattle in Ethiopia from 2005-2020 using WOAAH/FAOSTAT/ETHCSA

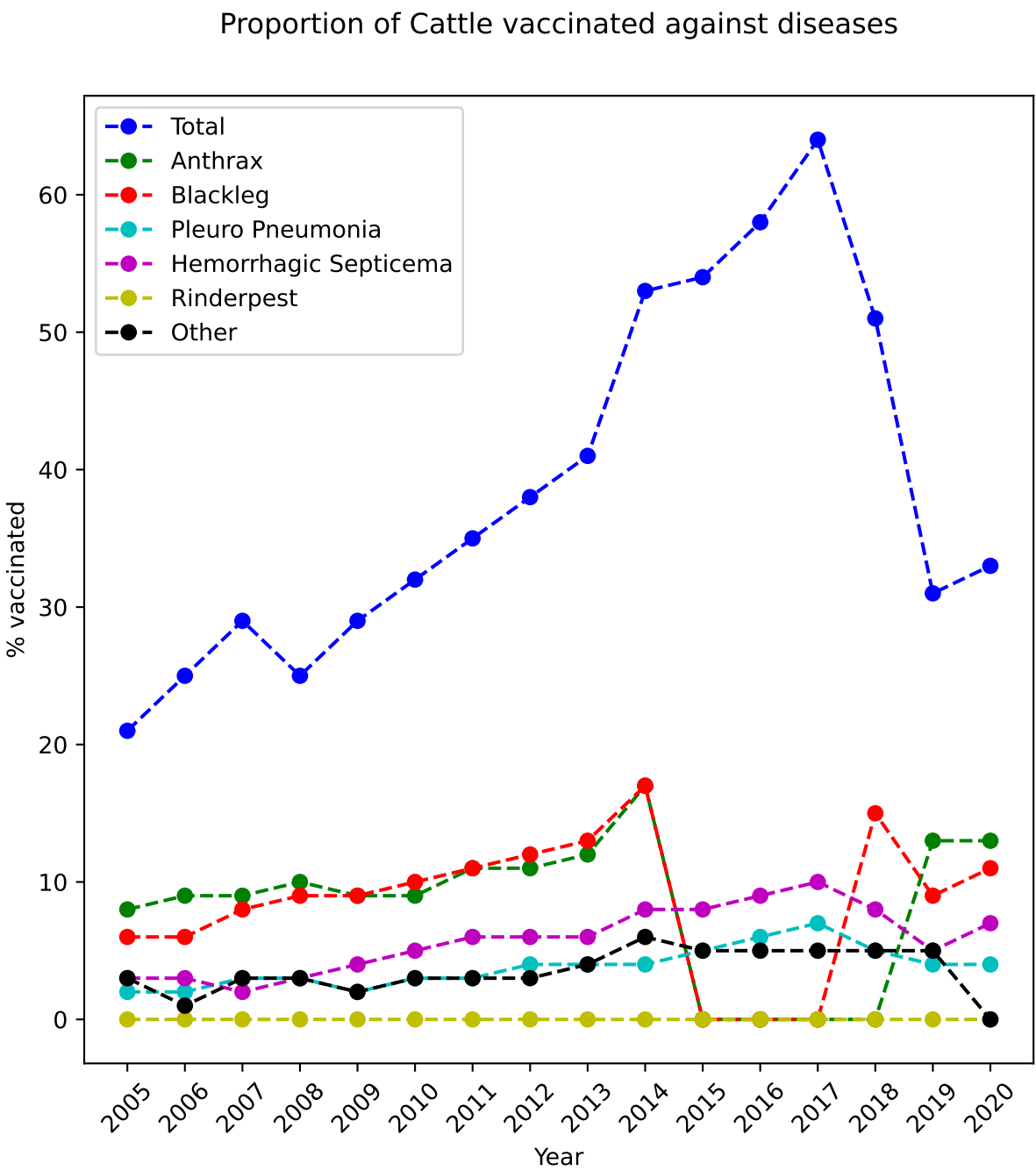
Discrepancies in Cattle Mortality from Total Reported and Sum of Disease-Specific Mortality



Discrepancies in Cattle Mortality from Total Reported and Sum of Disease-Specific Mortality

Year	Calc. Total Deaths	Total Deaths	% Difference
2005	3199362	3199363	0
2006	3241227	3241227	0
2007	3381417	3381417	0
2008	6436040	6436041	0
2009	4529978	4529978	0
2010	4092986	4092986	0
2011	5049943	5049944	0
2012	3616095	3663778	1
2013	3481333	3481333	0
2014	3231347	3231346	0
2015	3854800	3925952	1
2016	3786212	3786213	0
2017	4654803	4654803	0
2018	4267747	4267746	0
2019	3109310	3109310	0
2020	3433251	3433251	0

Population and Mortality Analysis for Cattle in Ethiopia from 2005-2020 using WOAH/FAOSTAT/ETHCSA



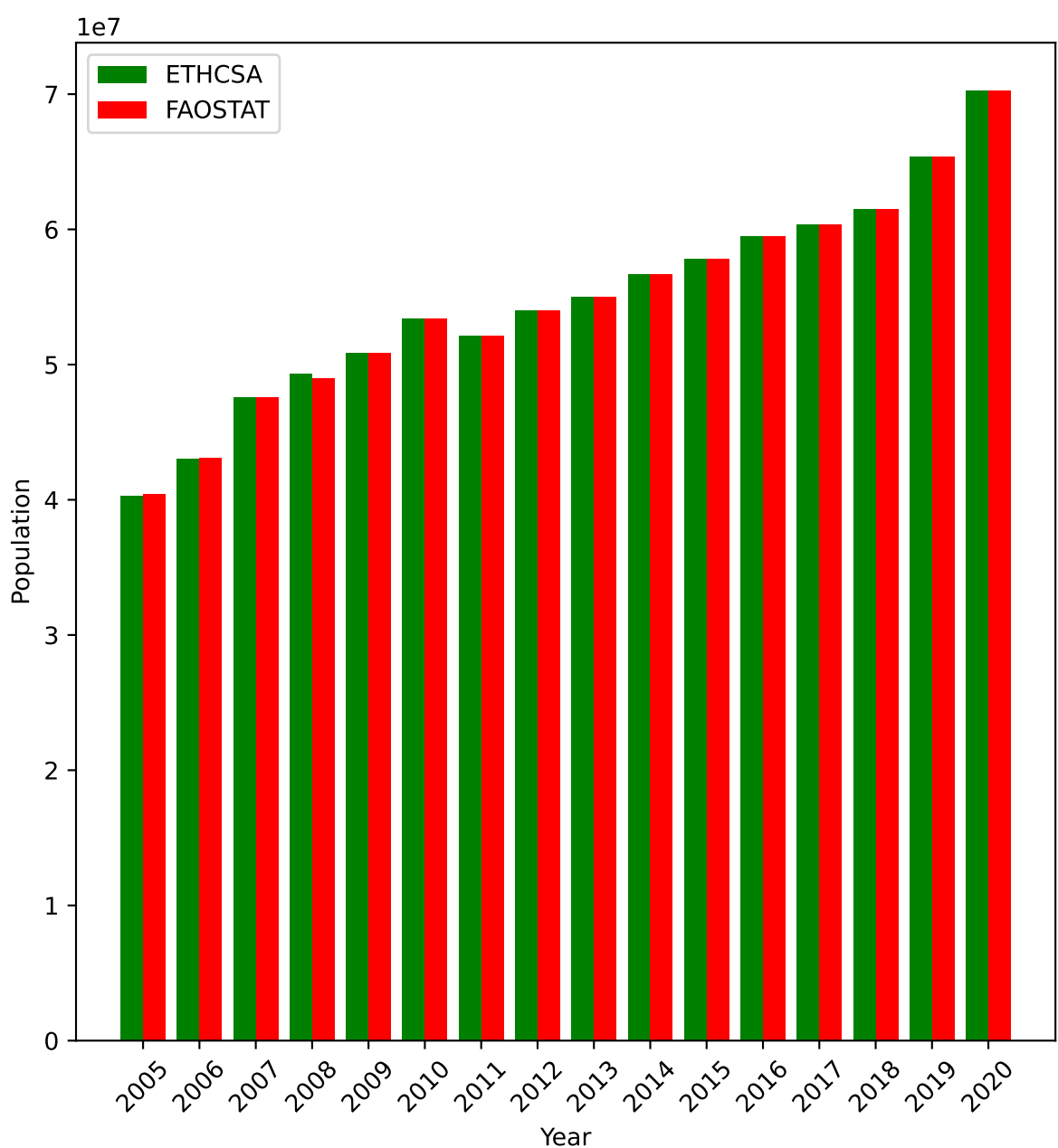
Proportion of Cattle vaccinated against diseases Table

Year	% total	% Anthrax	% Blackleg	% Pleuro Pneumonia	% Hemorrhagic Septicema	% Rinderpest	% Other	Total Pop
2005	8525708	3388248	2709277	895865	1228198	0	1400666	40281110
2006	10957338	4162767	2999105	1178769	1597367	272186	747145	43007315
2007	13910148	4724568	4128191	1574600	1399184	381726	1701879	47570675
2008	12717310	5049523	4506192	1782918	1800083	340245	1555234	49297898
2009	14796122	4709580	4893469	1506774	2244017	208733	1233549	50884005
2010	17374674	4937871	5853944	1804092	3031224	0	1747542	53382194
2011	18479097	5854098	5991196	1862571	3165970	0	1926909	52129017
2012	20748062	6255220	6526943	2620525	3407172	0	1935591	53990061
2013	22898179	6966111	7603230	2356326	3736697	0	2235815	55027280
2014	30598305	10009138	9957019	2613921	4599678	0	3418549	56706389
2015	31288453	-1	-1	3098248	4694157	0	3019695	57829953
2016	35048631	-1	-1	3665966	5421624	0	3242527	59486667
2017	38739149	-1	-1	4297028	6159435	0	3465355	60392019
2018	31550052	-1	9638403	3364511	5260478	0	3261736	61500000
2019	20859354	8634752	6362902	3120851	3443527	0	3300738	65354090
2020	23289865	9347969	8119788	3448277	5004499	0	0	70291776



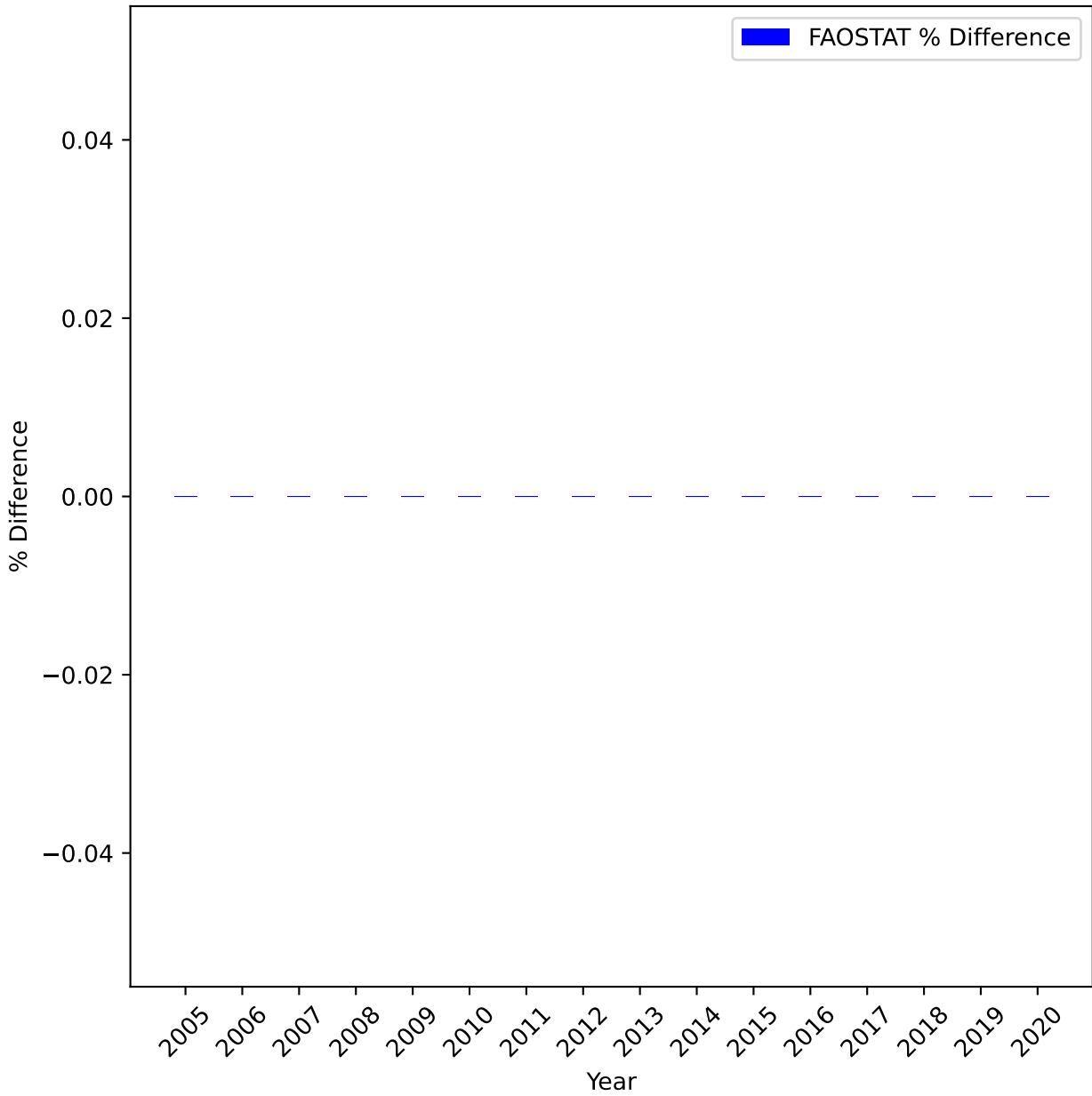
Population and Mortality Analysis for Cattle in Ethiopia from 2005-2020 using WOAH/FAOSTAT/ETHCSA

Comparison of Cattle population numbers sourced from ETHCSA and FAOSTAT



Comparison of Cattle population numbers sourced from ETHCSA and FAOSTAT TableComparison of Cattle population numbers sourced from ETHCSA and FAOSTAT

Year	ETHCSA Population	FAOSTAT Population
2005	40281110	40390096
2006	43007315	43124584
2007	47570675	47570680
2008	49297898	49000000
2009	50884005	50884004
2010	53382194	53382192
2011	52129017	52129016
2012	53990061	53990060
2013	55027280	55027080
2014	56706389	56706389
2015	57829953	57829953
2016	59486667	59486667
2017	60392019	60392019
2018	61500000	61510258
2019	65354090	65354090
2020	70291776	70291776



Population and Mortality Analysis for Cattle in Ethiopia from 2005-2020 using WOA/FAOSTAT/ETHCSA

Comparison of Cattle population numbers sourced from ETHCSA and WOA

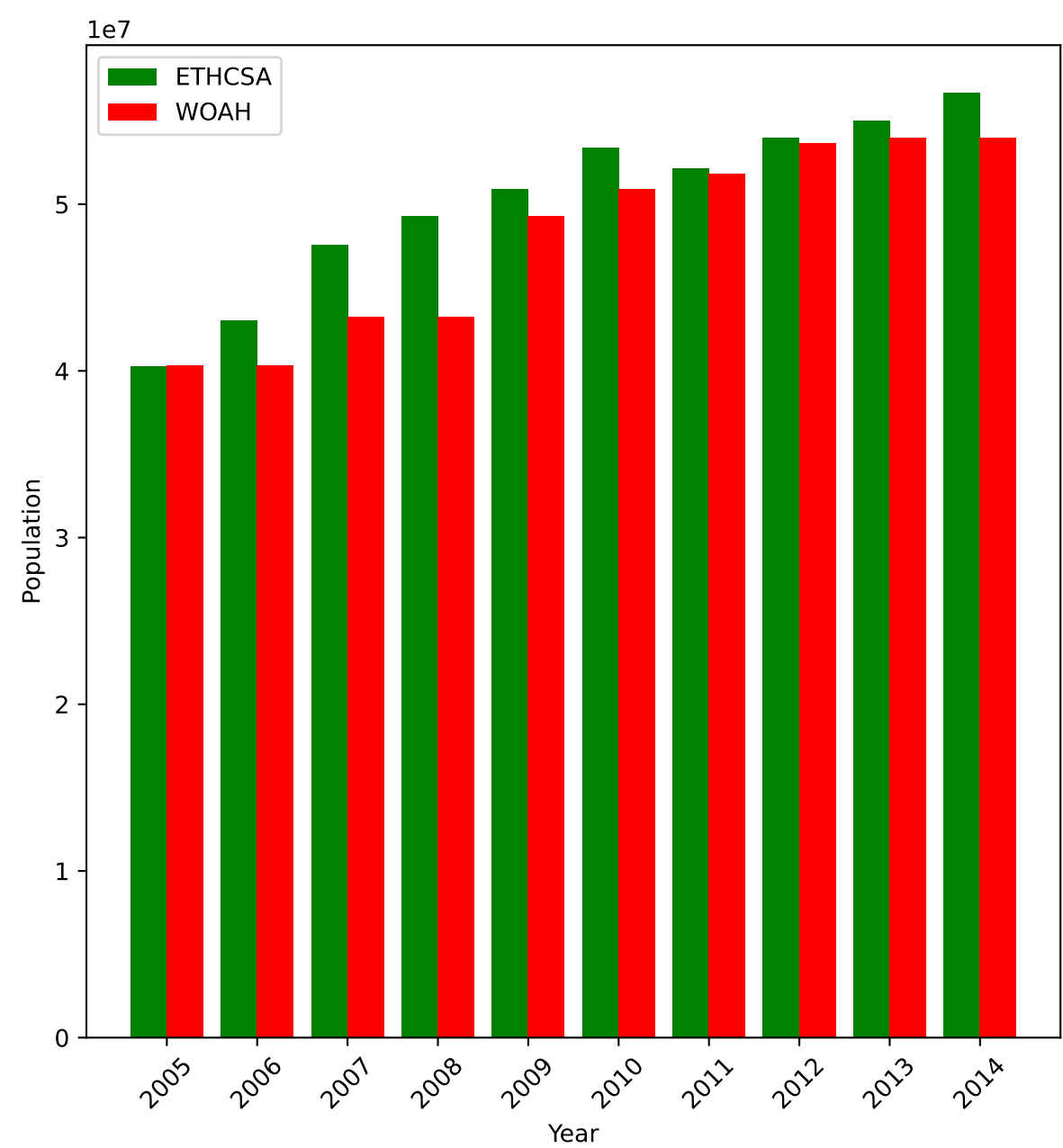


Table Comparison of Cattle population numbers sourced from ETHCSA and WOA

Year	ETHCSA Population	WOAH Population
2005	40281110	40306796
2006	43007315	40306796
2007	47570675	43233600
2008	49297898	43233600
2009	50884005	49297900
2010	53382194	50884000
2011	52129017	51827445
2012	53990061	53677808
2013	55027280	53990061
2014	56706389	53990061

Comparison of Cattle population numbers sourced from ETHCSA and WOA

