Table S1. Information of the Landsat-8 and Sentinel-2 images used in this study.

Landsat-8		Dates (Year/Month/day)	Sentinel-2	TR36VU	Dates (Year/Month/day)
	P:176, R:/39	20134013,20137018,20130803,20130904,20140110 20140211,20140315,20140331,20140416,20140518 20140603,20140619,20140806,20140822,20140907 20141009,20141025,20141228,20150129,20150302 20150403,20150622,20150708,20150724,20150809 20150926,20151113,20151129,20151215,20160116 20160304,20160405,20160421,20160608,20160710 20160726,20160827,20160912,20161014,20161217 20170203,20170510,20170526,20170611,20170627 20170713,20170729,20170814,20170830,20171001 20180222,20180326			20151221,20161006,20170613,20171230,20180718 20160120,20161215,20170713,20180203,20180812 20160219,20170203,20170812,20180305,20180921 20160429,20170305,20170911,20180414,20181031 20160721,20170404,20171026,20180519,20181210 20160825,20170504,20171120,20180618,20190104 20190213
	P:175, R:/39	20130711,20130727,20130828,20130929,20131218 20140220,20140612,20140628,20140815,20141103 20141119,20141205,20150122,20150615,20150701 20150802,20150903,20150919,20151208,20160226 20160601,20160617,20160820,20160905,20170604 20170620,20170722,20170924,20171026,20170607			
	P:175, R:/38	20130625,20130727,20130828,20131015,20131031 20140527,20140714,20140730,20140916,20141119 20150122,20150207,20150701,20150802,20151018 20151221,20150608,20160601,20160717,20160703 20160819,20160920,20160905,20160921,20161007 20170111,20170417,20170604,20170722,20170807 20170823,20170908,20180114,20180303,20180607			
	P:174, R:/39	20130501,20130618,20130704,20130720,20130805 20130906,20131024,20131125,20140213,20140504 20140707,20140723,20140808,20140824,20141027 20141230,20150131,20150405,20150608,20150710 20150726,20150811,20150928,20151014,20160203 20160407,20160423,20160525,20160626,20160714 20160728,20160914,20161101,20170104,20170205 20170325,20170528,20170613,20170629,20170715 20170731,20170816,20170917,20171104,20180312 20180413			

Table S2. prevailing migration directions extracted from the optical matching results and the resultant drift direction extracted from the wind records

Point ID	Metrological station name	Coordinates		Prevailing direction from Landsat-8	(CR)	Resultant drift direction (RDD) from wind records			
		Latitude	Longitude			Period	Season	RDD	(CR)
A	El kantara shark	30° 35' 14.93" N	32° 24' 55.33" E	66° 06' 25.84"	0.910	1997-2002#	Spring	156°04'03.20"	0.853
							Summer	170°42'58.58"	0.993
							Autumn	178°09'59.19"	0.999
							Winter	101°07'41.07"	0.997
B	EL-Malease	30° 49' 48.16" N	32° 25' 46.90" E	61° 37' 52.02"	0.944	1981-2002#	Spring	117°16'34.55"	0.899
							Summer	168°48'03.91"	0.998
							Autumn	147°17'36.13"	0.736
							Winter	109°00'01.88"	0.995
				49° 12' 56.86" *	0.900	2013-2015**		97°22'54.30"	0.984
C	Bir El-Abd	30° 33' 27.81" N	32° 56' 56.36" E	91° 15' 06.99"	0.980	1997-2000#	Spring	109°37'33.34"	0.877
							Summer	158°56'08.66"	0.977
							Autumn	153°25'17.68"	0.319
							Winter	98°26'28.30"	0.971
						2013-2015**		87°38'08.32"	0.960
D	EL-Arish	30° 53' 19.18" N	33° 04' 15.80" E	57° 03' 39.61"	0.985	*Records estimated from Sentinel-2 solution **the wind records are available in the format of average annually # The wind records are available in the format of average monthly over the mentioned period separately CR: Concentration ratio			
E	-	31° 02' 57.39" N	33° 44' 59.18" E	87° 08' 25.97"	0.980				
F	-	30° 32' 57.98" N	33° 26' 28.51" E	173° 20' 29.58"	0.986				
				173° 19' 00.67" *	0.987				
G	-	30° 04' 51.75" N	32° 45' 18.91" E	92° 43' 10.48"	0.859				
H	-	30° 59' 31.27" N	34° 17' 22.31" E	80° 49' 24.52"	0.981				
I	-	30° 43' 42.31" N	32° 51' 12.32" E	102° 26' 56.10"	0.973				
J	-	30° 39' 44.60" N	33° 51' 35.77" E	91° 24' 15.14"	0.984				
K		30° 34' 10.52" N	33° 35' 38.51" E	63° 27' 11.39"	0.986				
L	-	30° 52' 35.54" N	33° 54' 35.65" E	84° 13' 23.16"	0.977				