

Supplementary materials

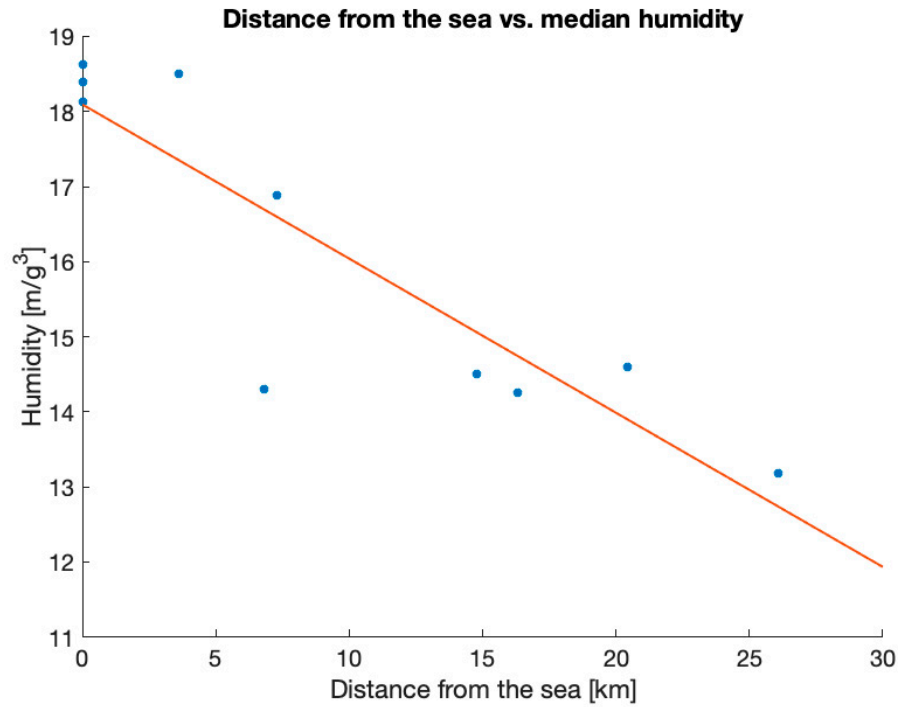


Figure S1: The median humidity from several weather stations along the Israeli coastline as a function of the distance from the sea.

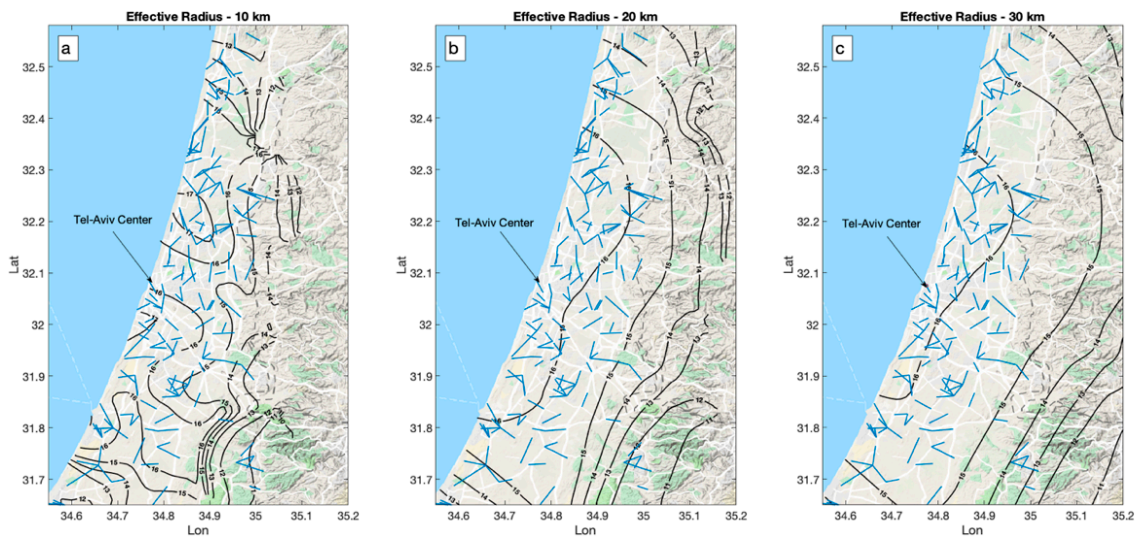


Figure S2: The average humidity field for the July 2017 (one instantaneous measurement every night at 3 am), for 10 km (a), 20 km (b), and 30 km (c) radius of interpolation.

Table S1: Four Skills Comparison for the Three Data Sources for July 2017.

Name	<i>CORR Links-IMS</i>	<i>CORR ECMWF-IMS</i>	<i>RMSD Links-IMS</i>	<i>RMSD ECMWF-IMS</i>	<i>Mean ECMWF</i>	<i>Mean IMS</i>	<i>Mean CMLs</i>	<i>STD ECMWF</i>	<i>STD IMS</i>	<i>STD Links</i>
ASHDOD PORT	<u>0.65</u>	0.11	3.31	<u>2.87</u>	<u>19.53</u>	20.76	17.82	2.14	1.81	<u>1.84</u>
BET DAGAN	<u>0.83</u>	0.57	<u>1.54</u>	1.95	<u>19.76</u>	18.62	17.36	<u>1.88</u>	1.56	1.19
HADERA PORT	<u>0.8</u>	0.74	3.7	<u>1.26</u>	<u>20.85</u>	20.65	17.08	<u>1.82</u>	1.7	1.41
HAFEZ HAYYIM	0.49	<u>0.72</u>	<u>1.83</u>	2.97	19.53	17	<u>16.98</u>	<u>2.14</u>	2.06	1.44
ENHAHORESH	<u>0.74</u>	0.67	<u>1.48</u>	3.73	20.85	17.39	<u>18.38</u>	<u>1.82</u>	1.65	1.44
NAHSHON	0.5	<u>0.89</u>	4.03	<u>2.56</u>	17.04	14.96	<u>16.63</u>	<u>2.86</u>	3.38	4
TEL AVIV COAST	<u>0.91</u>	0.26	2.55	<u>2.23</u>	<u>19.76</u>	20.02	17.59	<u>1.88</u>	1.82	1.62
^a MEAN	<u>0.7</u>	0.57	2.63	<u>2.51</u>	19.62	18.49	<u>17.41</u>	<u>2.07</u>	2	1.85

Note. First column: Station name; second and third (in parentheses) columns: Correlations (CORR) between the humidity from the 388 links (and ECMWF reanalysis, ERA-5) and the 7 IMS stations' humidity; fourth and fifth columns: as for second and third but for RMSD (g/m³); Next three columns (sixth, seventh, and eighth) show the MEAN humidity (g/m³) for links, ECMWF and stations; last three columns are as for the MEAN but for the standard deviation humidity, STD (g/m³) for the links, ECMWF reanalysis, and 7 IMS stations at the stations' locations. Values in bold indicate the best result. ECMWF = European Centre for Medium-Range Weather Forecasts; IMS = Israeli Meteorological Service; RMSD = root-mean-square deviation; STD = standard deviation. ^a The MEANs for all the 7 IMS stations (rows) for all the skills and all the links (388 links).