

DEEP-SEA DREDGINGS OF LE TRAVAILLEUR.

Abstract of deep-sea dredgings in the Bay of Biscay, the Atlantic Ocean, and the Mediterranean, by the French dispatch boat *Le Travailleur*.

[Under the command of M. E. F. Richards, Lieutenant de Vaisseau, by a commission of naturalists, of which M. Milne Edwards was president.]

BAY OF BISCAY IN 1880.

Dates.	Number of dredging.	Positions.		Soundings.	Character of bottom.
		Latitude.	Longitude.		
		<i>North.</i>	<i>West.</i>	<i>Fath.</i>	
July 17	1	43 38 00	1 55 15	230	Soft gray mud.
Do.	2	43 36 00	1 54 45	537	Soft yellowish mud.
Do.	3	43 35 25	1 53 40	364	Mud.
July 19	4	43 33 10	2 10 35	181	Mud.
Do.	5	43 33 30	2 11 45	177	Yellowish muddy sand.
Do.	6	43 36 55	2 13 05	313	Gray mud.
Do.	7	43 37 55	2 14 45	205	Rock.
Do.	8	43 38 15	2 15 00	338	Gray mud.
Do.	9	43 39 55	2 16 45	539	Mud.
Do.	10	43 40 55	2 15 05	517	Two kinds of mud, upper layer yellowish.
Do.	11	43 41 45	2 14 30	913	Soft mud.
Do.	12	43 33 30	2 25 00	252	Mud.
July 20	13	43 37 05	2 49 10	67	Mud and gravel.
Do.	14	43 36 45	3 02 50	364	Sand and mud.
Do.	15	43 41 15	3 02 45	1,340	Mud.
Do.	16	43 42 30	3 01 15	1,450	Mud.
Do.	17	43 30 30	3 17 20	558	Mud.
July 22	18	43 47 00	3 41 45	1,042	No bottom.
Do.	19	43 44 30	3 38 20	1,235	Mixed sand and mud.
Do.	20	43 46 10	3 35 55	1,481	Mud.
July 23	21	43 38 09	4 09 35	658	Mud.
Do.	22	43 38 25	4 08 25	740	Mud.
Do.	23	43 35 30	4 04 45	605	Mud.
Do.	24	43 32 40	4 10 45	80	Sand, gravel, shell.
Do.	25	43 35 10	3 44 15	171	Sand, gravel, shell.
Do.	26	43 35 30	4 28 35	361	Mud.
Do.	27	43 37 25	4 31 45	104	Speckled sand.
Do.	28	43 39 30	4 34 45	110	Sand.
Do.	29	43 40 15	4 37 50	127	Rock.
Do.	30	43 30 45	4 46 35	91	Black sand.
Do.	31	43 30 45	4 50 55	91	Speckled sand shell.
Do.	32	43 45 00	5 02 25	91	Black sand.
July 24	33	43 40 30	5 11 40	84	Speckled sand, gravel.
Do.	34	43 54 30	5 20 35	87	Black sand, gravel.
Do.	35	43 57 30	5 27 15	96	Black sand, gravel.
Do.	36	43 38 30	5 21 15	77	Black sand.
Do.	37	43 38 30	5 05 05	217	Sand, gravel.
Do.	38	43 41 30	4 23 45	817	Sand, eight different layers.
Do.	39	43 36 40	4 02 15	651	Mud.
July 26	40	43 39 50	3 32 15	1,044	Mud.
Do.	41	43 39 05	3 27 45	1,072	Mud.
Do.	42	43 36 45	3 29 45	744	Mud.
Do.	43	43 35 00	3 27 20	68	Rock, gravel.
Do.	44	43 34 30	3 23 05	111	Mixed sand and mud.
Do.	45	43 34 05	3 16 45	81	Mixed gray sand and mud.
July 27	46	43 33 25	3 11 00	68	Broken shells.
Do.	47	43 37 20	3 09 15	664	Mud.
Do.	48	43 36 30	3 15 55	344	Mud.
Do.	49	43 36 00	3 04 55	601	Mud.
Do.	50	43 36 00	2 54 55	592	Mud.
Do.	51	43 33 20	2 55 00	171	Mixed sand and mud.
Do.	52	43 34 15	3 00 00	113	Speckled sand, gravel.
Do.	53	43 31 10	2 55 40	361	Mud.
Do.	54	43 34 20	2 54 15	183	Sand.
Do.	55	43 35 40	2 46 30	591	Mud.
Do.	56	43 30 45	2 45 15	525	Mud.
Do.	57	43 39 25	2 45 10	541	Mud.
Do.	58	43 40 00	2 39 15	1,105	No bottom.
July 28	59	43 40 35	2 14 45	656	Mud.
Do.	60	43 40 55	2 11 35	500	Mud.
Do.	61	43 41 20	2 02 35	98	Rock.
Do.	62	43 41 20	2 01 35	115	Mud.
Do.	63	43 40 00	2 01 45	91	Sand.
Do.	64	43 45 30	2 07 15	410	Mud.
Do.	65	43 44 00	2 06 45	334	Shell and coral.
Do.	66	43 46 50	2 06 30	445	Soft mud.
Do.	67	43 38 45	2 08 25	634	Mud.

Abstract of deep-sea dredgings in the Bay of Biscay, etc.—Continued.

RAY OF BISCAY IN 1880—Continued.

Dates.	Number of dredging.	Positions.		Soundings.	Character of bottom.
		Latitude.	Longitude.		
		North.	West.		
July 20	68	43 32 35	2 09 30	Faths. 167	Mud.
Do.	69	43 36 20	2 17 00	308	Mud.
July 30	70	43 37 45	2 30 00	930	Mud.
Do.	71	43 37 30	2 06 20	625	Mud.
Do.	72	43 33 45	1 59 15	349	Mud.
Do.	73	43 32 40	1 52 50	77	Fine sand.
Do.	74	43 35 00	1 52 53	93	Sand.
Do.	75	43 30 30	1 53 35	231	Mud.
Do.	76	43 37 30	1 53 45	440	Mud.
Do.	77	43 37 50	1 51 55	449	Mud.
Do.	78	43 38 00	1 47 30	155	Mud.
Do.	79	43 40 15	1 50 55	77	Sand.
Do.	80	43 41 25	2 02 10	91	Sand.
July 31	81	43 42 25	1 53 00	77	Mud.
Do.	82	43 41 15	1 47 00	78	Mud.
Do.	83	43 40 30	1 45 15	73	Mud.
Do.	84	43 30 00	1 45 10	74	Mud.
Do.	85	43 37 40	1 45 35	204	Mud.
Do.	86	43 35 40	1 43 55	336	Mud.
Do.	87	43 33 55	1 44 05	71	Mud.
Do.	88	43 33 30	1 42 05	66	Sand.
Do.	89	43 36 00	1 42 05	73	Sand.
Do.	90	43 37 15	1 42 05	74	Mixed sand and mud.
Do.	91	43 38 25	1 42 00	239	Soft mud.
Do.	92	43 39 20	1 41 40	135	Mud.
Do.	93	43 40 10	1 40 55	79	Mixed sand and mud.
Do.	94	43 39 30	1 38 25	314	Mixed sand and mud.
Do.	95	43 38 20	1 38 30	74	Mud.
Do.	96	43 38 15	1 40 05	149	Mud.
Do.	97	43 39 05	1 40 25	151	Rock.
Do.	98	43 40 25	1 39 55	79	Sand, rock.
Do.	99	43 40 30	1 38 30	179	Gray sand, rock.
Do.	100	43 40 35	1 38 10	238	Mud.
Do.	101	43 40 30	1 35 10	179	Soft green mud.
Do.	102	43 36 50	1 57 45	612	Mud.
Do.	103	43 35 40	1 55 30	514	Mud.

IN THE ATLANTIC IN 1881.

FIRST SERIES.					
June 13	1	43 00 40	0 37 25	1, 103	Sand and rock.
June 14	2	41 43 00	0 19 25	584	Sand, pebbles.
June 15	3	39 47 50	0 51 45	1, 808	Gray mud.
June 16	4	38 08 50	0 43 15	1, 369	Gray mud.
Do.	5	38 05 00	0 41 45	1, 721	Gray mud.
June 17	6	36 55 20	0 21 45	1, 020	(Gray mud.
June 18	7	36 38 20	7 03 41	291	Soft mud.
July 31	30	35 24 45	7 58 52	656	Soft mud.
Do.	31	30 27 15	8 12 41	756	Soft mud.
Do.	31	30 27 15	8 12 41	1, 148	Soft mud.
Aug. 1	32	37 15 20	0 24 55	618	Soft mud.
Do.	32	37 15 20	0 24 55	563	Soft mud.
Aug. 5	33	38 15 20	0 17 45	1, 014	Soft mud.
Do.	33	38 15 20	0 17 45	1, 013	Soft mud.
Aug. 6	34	38 18 00	0 24 15	660	Soft mud.
Do.	35	38 18 30	0 26 25	747	Soft mud.
Aug. 7	36	39 33 00	0 51 15	1, 416	Soft mud.
Do.	36	39 31 00	0 58 45	1, 455	Soft mud.
Aug. 14	37	44 10 15	8 17 45	219	Gravel, sand, and shell.
Do.	38	44 11 00	8 13 45	1, 048	Mud.
Aug. 15	39	44 05 00	7 00 25	670	Black sand, coral.
Do.	30	44 04 45	7 03 15	521	Black sand, coral.
Do.	39	44 05 00	7 09 15	547	Gravel, coral.
Do.	39	44 05 45	7 12 15	567	Black sand, coral.
Do.	40	44 05 00	7 14 45	214	Black sand.
Aug. 16	41	44 02 15	7 07 15	598	Sand and mud.
Do.	42	44 01 20	7 04 45	490	Mud and coral.
Do.	43	44 00 50	6 58 00	402	Mixed sand and mud.
Do.	44	44 00 10	6 48 00	954	Mud.
Aug. 17	45	44 48 30	4 40 15	2, 756	Mud with foraminifera.

Abstract of deep-sea dredgings in the Bay of Biscay, etc.—Continued.

IN THE MEDITERRANEAN IN 1881.

Dates.	Number of dredgings.	Positions.		Soundings.	Character of bottom.
		Latitude.	Longitude.		
FIRST SERIES.					
		<i>North.</i>	<i>West.</i>	<i>Faths.</i>	
June 22	8	36 31 45	2 11 35	167	Granulated mud.
Do	9	36 31 55	2 07 55	481	Gray and yellow mud.
Do	9	36 31 55	2 06 55	552	Gray and yellow mud.
June 23	10	37 27 55	0 13 35	1,392	Granulated mud.
			<i>East.</i>		
June 24	11	38 03 00	0 07 30	87	Yellow mud.
June 25	12	39 34 15	1 39 25	831	Fine yellow mud.
June 27	13	42 01 30	4 42 00	1,293	Granulated mud.
SECOND SERIES.					
July 4	1	43 02 57	5 18 45	303	Mud.
Do	2	42 57 15	5 19 12	589	Mud.
July 5	3	43 52 40	5 18 45	634	Mud.
Do	4	42 50 25	5 17 40	1,105	Mud.
Do	4	42 52 33	5 20 15	1,018	Mud.
Do	5	42 54 04	5 20 27	1,020	Mud.
July 6	6	42 59 20	5 41 05	295	Mud.
Do	6	42 59 50	5 41 30	307	Mud.
Do	7	43 00 20	5 46 27	411	Mud.
Do	8	43 01 00	5 48 35	108	Mud with a few rocks.
Do	9	43 00 35	5 42 15	248	Coral.
July 7	10	43 23 05	6 58 35	328	Mud.
Do	11	43 34 34	7 12 38	412	Mud.
Do	12	43 37 05	7 11 32	473	Sticky mud.
July 9	13	43 40 20	7 17 21	372	Mud.
Do	13	43 41 32	7 17 12	292	Mud.
Do	14	43 41 38	7 17 51	156	Mud.
Do	14	43 41 21	7 19 05	35	Mud.
July 11	15	43 40 36	7 20 23	22	Coral.
Do	15	43 40 36	7 20 23	55	Mud.
Do	15	43 41 16	7 17 49	102	Black mud.
Do	16	43 24 35	7 22 15	1,131	Black mud.
July 12	17	43 15 00	7 21 15	1,464	Black mud.
Do	17	43 00 15	7 32 45	1,451	Black mud.
July 13	18	41 52 40	8 22 55	1,348	Mud.
Do	18	41 52 40	8 22 55	846	Mud.
Do	19	41 52 45	8 29 10	295	Coral.
July 15	20	41 52 35	8 35 50	14	Coral.
Do	20	41 53 50	8 35 55	25	Coral.
Do	20	41 52 52	8 31 40	38	Coral.
Do	21	41 40 52	8 34 35	397	Gray and yellow mud.
Do	22	41 49 20	8 45 05	495	Gray and yellow mud.
Do	23	41 42 35	8 20 25	153	Mud.
July 16	24	41 22 15	9 07 15	42	Gravel, coral.
Do	24	41 22 15	9 07 15	30	Gravel, coral.
Do	24	41 22 15	9 07 15	36	Gravel, coral.
Do	24	41 22 15	9 07 15	41	Gravel, coral.
July 18	25	42 59 45	5 13 55	680	Mud.
Do	25	41 01 10	5 13 55	555	Mud.
Do	25	43 03 50	5 13 55	231	Mud.
Do	25	43 02 55	5 13 55	298	Mud.
Do	25	43 02 30	5 13 55	354	Mud.
			<i>West.</i>		
July 25	26	35 45 30	1 08 10	492	Soft mud.
July 26	27	35 30 00	2 58 15	60	Mixed sand and mud.
Do	27	35 32 00	3 13 05	238	Mixed sand and mud.
Do	27	35 31 45	3 11 25	288	Mud.
July 27	28	35 21 30	4 28 35	176	Mud.
Do	28	35 21 20	4 32 45	203	Mud.
Do	28	35 23 00	4 34 00	236	Mud.
Do	29	35 24 20	4 39 15	236	Mud.