

Known High-Density Deepwater Benthic Communities in the Gulf of Mexico

AREA/BLOCK	LAT. (NORTH)	LONG. (WEST)	WATER DEPTH (meters)	TYPE FAUNA ¹	OBSERVATION METHOD ²	DATA SOURCE ³
AC 601	26°21.75'	94°30.60'	2366	Unidentified	SUB	16
AC 607	Within block	Within block	Not applicable	Unidentified	ROV	17
AC 645	26°21.20'	94°29.80'	2200	VM	SUB	1
AC 645	26°22.28'	94°29.82'	2226	Unidentified	SUB	16
AC 775	26°13.55'	94°36.2'	2645	Unidentified	SUB	16
AC 818	26°09.68'	94°34.6'	2875	Unidentified	SUB	16
AC 857	Within block	Within block	Not applicable	Unidentified	PHOTOSL	17
AT 340	27°38.78'	88°21.95'	2242	Unidentified	SUB	16
EB 339	27°39.15'	94°24.30'	780	C	TRL	2, 3
EB 375	27°36.60'	94°47.35'	773	VC	TRL	2, 3
EB 376	27°36.00'	94°46.00'	776	VC	SUB	2, 3
EB 380	27°36.15'	94°35.40'	793	PG	TRL	2,
EB 602	27°23.50'	94°29.45'	1111	M	TRL	2,
EW 1001	27°58.70'	90°23.40'	430	V	SUB, TRL	2, 3, 4
EW 1010	27°57.25'	89°57.50'	597	V	SUB, TRL	2, 3, 4
GB 297	27°40.50'	92°18.00'	589	VC	TRL	2, 3
GB 300	27°42.65'	92°10.45'	719	VC	TRL	2, 3
GB 342	27°38.00'	92°17.50'	425	VC	TRL	2, 3
GB 382	27°36.50'	92°28.94'	570	MC	SUB	4
GB 386	27°36.82'	92°15.25'	585	VC	SUB, TRL	2, 3, 4
GB 387	27°37.15'	92°14.40'	781	VC	SUB, TRL	2, 3, 4
GB 416	27°34.50'	92°55.95'	580	VC	SUB	4
GB 424	27°33.40'	92°32.40'	570	MC	SUB	4
GB 425	27°35.00'	92°30.00'	600	V	SUB	4
GB 458	27°30.05'	93°02.01'	757	VC	TRL	2, 3
GB 476	27°31.50'	92°10.50'	750	M	SUB	4
GB 500	27°27.55'	93°08.60'	734	PG	TRL	2, 3
GB 535	27°26.21'	93°35.64'	573	C	SUB	12
GC 30	27°55.50'	90°27.50'	504	VM	SUB	4
GC 40	27°56.65'	89°58.05'	685	VPG	TRL	2, 3
GC 79	27°54.40'	90°11.90'	685	VC	TRL	2, 3
GC 81	27°53.56'	90°07.07'	682	VM	PHOTOSL	11
GC 121	27°50.00'	90°19.00'	767	V	SUB	4
GC 140	27°49.16'	91°31.95'	348	VM	SUB	10
GC 155	Within block	Within block	Not applicable	VC	ROV	17
GC 166	27°46.75'	90°14.70'	767	VM	SUB, TRL	2, 3, 4
GC 184/185	27°46.65'	91°30.35'	580	VM	SUB, TRL	2, 3, 4, 9
GC 210	27°45.00'	90°16.31'	715	VC	SUB	4
GC 210	27°46.33'	90°15.00'	796	VMC	SUB	4
GC 216	27°45.50'	89°58.30'	963	C	SUB, PHOTOSL	2, 3, 8
GC 229	27°43.10'	91°30.15'	825	V	TRL	2, 3
GC 232	27°44.30'	91°19.10'	807	VM	SUB	4
GC 233	27°43.30'	91°16.30'	650	VM	SUB	6
GC 233	27°43.70'	91°17.55'	813	VMC	TRL	2, 3
GC 234	27°44.08'	91°15.27'	600	VM	SUB	4, 6
GC 234	27°44.80'	91°13.30'	550	VM	SUB	4, 7
GC 272	27°40.88'	91°32.10'	720	VMC	SUB, TRL	2, 3, 4, 5
GC 287	27°39.60'	90°48.90'	994	VC	SUB, TRL	2, 3

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GC 293	27°40.45'	90°29.10'	1042	C	TRL	2, 3
GC 310	27°37.75'	91°49.15'	780	V	TRL	2, 3
GC 354	27°35.91'	91°49.55'	549	VCOG	SUB	15
GC 600	27°21.98'	90°33.85'	1249	Unidentified	SUB	16
GC 822	Within block	Within block	3812	C	ROV	17
GC 852	27°06.75'	91°09.85'	1448	Unidentified	SUB	16
GC 866	Within block	Within block	Not applicable	Unidentified	ROV	17
KC 216	26°46.32'	92°00.2'	1754	Unidentified	SUB	16
KC 243	26°45.02'	92°49.75'	1610	Unidentified	SUB	16
KC 333	26°37.98'	92°41.27'	1610	Unidentified	SUB	16
MC 118	Within block	Within block	Not applicable	V	ROV	17
MC 426	Within block	Within block	Not applicable	VC	ROV	17
MC 640	28°21.35'	88°47.58'	1404	Unidentified	SUB	16
MC 709	Within block	Within block	Not applicable	Unidentified	ROV	10
MC 853	28°07.4'	89°08.38'	1082	Unidentified	SUB	16
MC 943	28°03.00'	88°59.72'	1340	Unidentified	SUB	16
MC 981	27°58.43'	89°17.7'	1300	Unidentified	SUB	13
MC 969	27°57.10'	89°54.30'	658	C	TRL	2, 3
VK 826	29°11.00'	88°00.00'	545	VC	SUB, ROV, TRL	4, 5, 12, 13, 14
VK 862	29°06.40'	88°23.10'	350	CO	SUB, ROV, TRL	4, 14, 18
WR 269	26°41.07'	91°40.28'	1862	Unidentified	SUB	16

Footnotes:

(1) Type Fauna:

V = Vestimentiferan Tube Worms
M = Seep Mytilids
C = Vesicomid or Lucinid Clams
PG = Pogonophoran Tube Worms
CO = Coral
G = Gorgonian

(2) Observation Methods:

TRL = Trawl beginning location; indicator organisms retrieved in trawl at some distance from this point
SUB = Submarine
ROV = Remotely Operated Vehicle
PHOTOSL = Photosled

(3) Data sources

1) Brooks, J.M., M.C. Kennicutt II, I.R. Macdonald, D.L. Wilkinson, N.L. Guinasso, Jr., and R.R. Bidigare. 1989. Gulf of Mexico hydrocarbon seep communities: Part IV - Description of known chemosynthetic communities. Proc. 21st Offshore Technology Conference, OTC 5954, pp. 663-667.

2) Kennicutt II, M.C., J.M. Brooks, and G.J. Denoux. 1988. Leakage of deep, reservoired petroleum to the near surface on the Gulf of Mexico continental slope. Mar. Chem. 24:39-59.

3) Kennicutt II, M.C., J.M. Brooks, R.R. Bidigare, and G.J. Denoux. 1988. Gulf of Mexico hydrocarbon seep communities-I. Regional distribution of hydrocarbon seepage and associated fauna. Deep-Sea Res. 35:1639-1651.

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- 4) Geochemical and Environmental Research Group. Unpublished data. Texas A&M University, College Station, TX.
-
- 5) Callender, W.R., G.M. Staff, E.N. Powell, and I.R. MacDonald. 1990. Gulf of Mexico hydrocarbon seep communities; V. Biofacies and shell orientation of autochthonous shell beds below storm wave base. *Palaios* 5:2-14.
-
- 6) MacDonald, I.R., J.F. Reilly, N.L. Guinasso Jr., J.M. Brooks, R.S. Carney, W.A. Bryant, and T.J. Bright. 1990. Chemosynthetic mussels at a brine-filled pockmark in the northern Gulf of Mexico. *Science* 248:1096-1099.
-
- 7) MacDonald, I.R., N.L. Guinasso Jr., J.F. Reilly, J.M. Brooks, W.R. Callender, and S.G. Gabrielle. 1990. Gulf of Mexico hydrocarbon seep communities; VI. Patterns in community structure and habitat. *Geo-Mar. Lett.* 10:244-252.
-
- 8) Rosman, I., G.S. Boland, and J.S. Baker. 1987. Epifaunal aggregations of Vesicomidae on the continental slope off Louisiana. *Deep-Sea Res.* 34:1811-1820.
-
- 9) MacDonald, I.R., G.S. Boland, J.S. Baker, J.M. Brooks, M.C. Kennicutt II, and R.R. Bidigare. 1989. Gulf of Mexico hydrocarbon seep communities; II. Spatial distribution of seep organisms and hydrocarbons at Bush Hill. *Mar. Biol.* 101:235-247.
-
- 10) Roberts, H.H., P. Aharon, R. Carney, J. Larkin, and R. Sassen. 1990. Sea floor responses to hydrocarbon seeps, Louisiana continental slope. *Geo-Mar. Lett.* 10(4):232-243.
-
- 11) Boland, G.S. 1986. Discovery of co-occurring bivalve *Acesta* sp. and chemosynthetic tube worms *Lamellibrachia*. *Nature* 323:759.
-
- 12) Boss, K.J. 1968. New species of Vesicomidae from the Gulf of Darien, Caribbean Sea (Bivalvia; Mollusca). *Bull. Mar. Sci.* 18:731-748.
-
- 13) Gallaway, B.J., L.R. Martin, and G.F. Hubbard. 1990. Characterization of the chemosynthetic fauna at Viosca Knoll Block 826. Unpublished report to Oryx Energy Inc. LGL Ecological Research Associates Inc., Dec. 1990. 35 pp., maps and photographs.
-
- 14) Volkes, H.E. 1963. Studies on tertiary and recent giant Limidae. *Tulane Studies in Geology* 1:75-92.
-
- 15) Boland, G.S. 2000. Personal communication. US Department of the Interior, Minerals Management Service, Herndon, VA.
-
- 16) Chemo III investigation using the Alvin submarine.
<http://oceanexplorer.noaa.gov/explorations/06mexico>
<http://oceanexplorer.noaa.gov/explorations/07mexico/welcome.html>
-
- 17) US Department of the Interior, Minerals Management Service, Gulf of Mexico Region, New Orleans, LA. Identified during hazard survey/study.
-
- 18) CSA International, Inc. 2007. Characterization of northern Gulf of Mexico deepwater hard bottom communities with emphasis on *Lophelia* coral. U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2007-044. 169 pp. + app.
<http://www.gomr.mms.gov/PI/PDFImages/ESPIS/4/4264.pdf>
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